




3 1761 11765553 0



Digitized by the Internet Archive
in 2022 with funding from
University of Toronto

<https://archive.org/details/31761117655530>



Indian and
Northern Affairs

Affaires indiennes
et du Nord

North of 60

Land Use and Public Policy in Northern Canada

John K. Naysmith

CAI
IA 340
- 77417



LAND USE AND PUBLIC POLICY IN NORTHERN CANADA

by

John Kennedy Naysmith

Northern Policy and Program Planning Branch
Northern Program
Department of Indian and Northern Affairs
1st Printing February 1976
2nd Printing February 1977

...the genesis of a northern lands policy should be a thorough understanding of the nature, capability and limitations of the land; but to understand the human values and attitudes respecting northern land, is to know its essential character.

The views expressed in this publication are those of the author and not necessarily those of the Department of Indian Affairs and Northern Development.

Issued under authority of the
Hon. Judd Buchanan, PC, MP,
Minister of Indian and Northern Affairs
Ottawa, 1975
INA Publication No. QS-8091-000-EE-A1

Minister of Supply and Services Canada 1977
Catalogue No. R72-148/1977
ISBN 0-662-00471-X

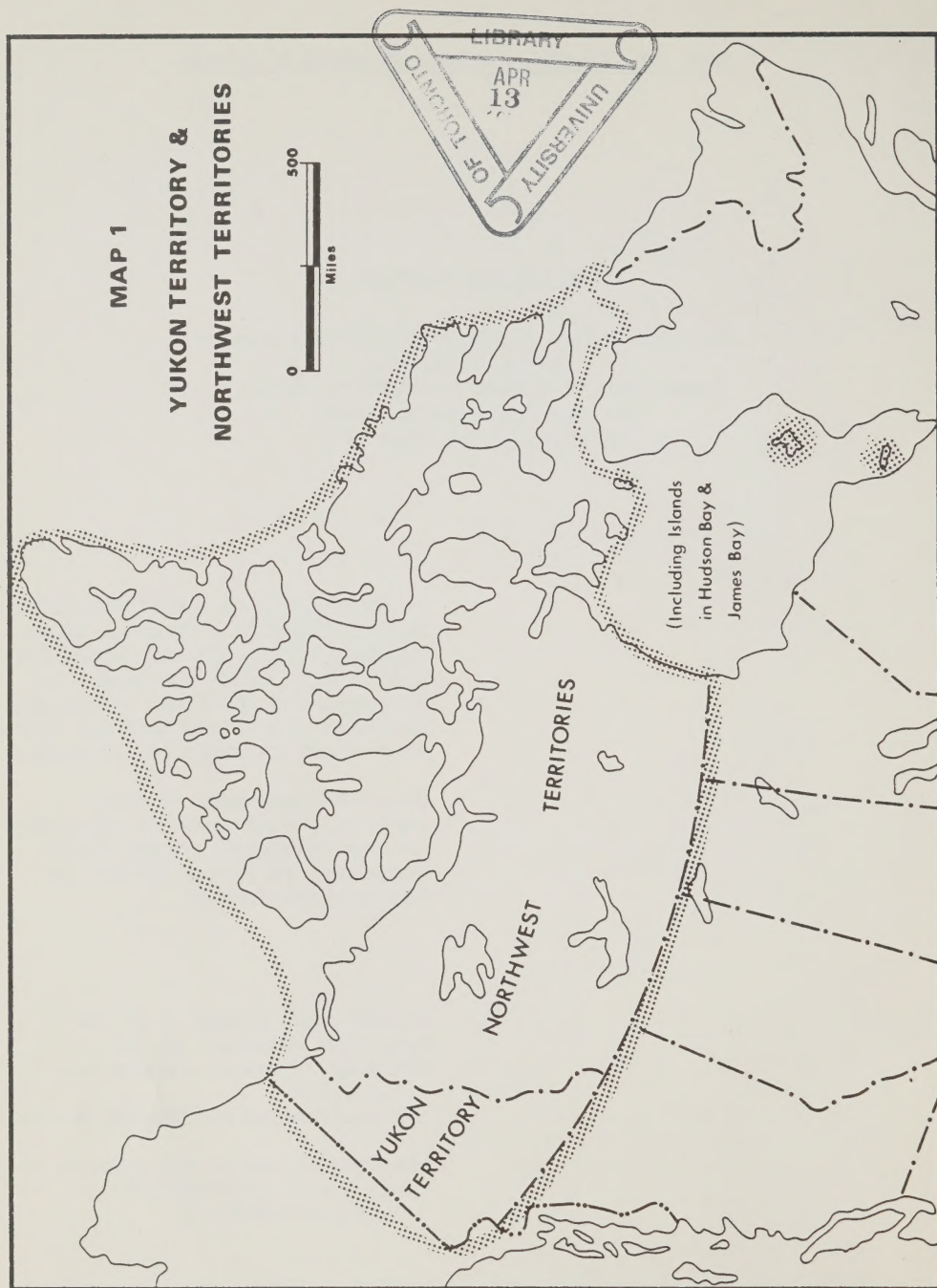


TABLE OF CONTENTS

INTRODUCTION	1
------------------------	---

PART ONE. HISTORIC PERSPECTIVE

Chapter

I	THE ORIGINAL PEOPLE	5
	Man's Arrival in the North	
	Indians of the Mackenzie and Yukon Basins	
	The Inuit	
II	THE INTRODUCTION OF WESTERN CULTURE	21
	Enter the Trader	
	Changing Patterns	
III	LAND USE AND THE LAW	36
	Rupert's Land and the North Western Territory	
	The Dominion Lands Act	
	The Yukon Territory Before 1900	
	Mining, Oil and Gas Activities Begin	

PART TWO. THE PRESENT SETTING

IV	FEDERAL GOVERNMENT LEGISLATION	61
	Territorial Land Use Regulations	
	Mining Acts and Regulations	
	Oil and Gas Regulations	
	Quarrying, Coal and Timber Regulations	
	Territorial Land Regulations	
V	TERRITORIAL GOVERNMENT LEGISLATION	76
	Commissioner's Lands	
	Area Development Ordinance	
	The Territorial Park Ordinance - NWT	

Chapter

VI	LAND ADMINISTRATION IN THE NORTH	82
	Territorial Governments	
	Federal Government	
	Federal-Territorial Liaison	
	 PART THREE. A FUTURE COURSE	
VII	PUBLIC LAND POLICY - A QUESTION OF VALUES	91
VIII	THE ADMINISTRATION AND MANAGEMENT OF	
	PUBLIC LANDS - SOME ALTERNATIVES	97
	Laissez-Faire	
	Public Bureaucratic Management	
	Multiple Use	
	The Ecological Approach	
	A Northern Approach	
IX	LAND USE PLANNING	109
	Why Plan?	
	The Planning Process	
X	POLICY INTO PRACTICE	118
	Underlying Principles	
	Goals in Northern Lands Policy	
	Northern Land Use Planning	
	The Native Claim	
	The Public's Role	
	A Planning Authority	
	Territorial Land Commissions	
	A Land Commission Act	
	Other Considerations	
	A Northern Ecological Sites Act	
	A Northern Forest Act	
	To Lease or Sell	
	 CONCLUSIONS	164
	 BIBLIOGRAPHY	175
	 APPENDIX	195

LIST OF MAPS

Number		Page
1	The Yukon Territory and Northwest Territories	ii
2	Glaciation	7
3	Cultural Areas	9
4	Approximate Distribution of Indian Tribes North of 60 in 1725 A.D.	11
5	The Denbigh People 3000 B.C. - 500 B.C., Inuit	14
6	The Dorset People 1000 B.C. - A.D. 1100, Inuit	16
7	The Thule-Inuit People A.D. 800 to Present, Inuit	17
8	Approximate Distribution of Eskimo in 1525 A.D.	19
9	Moses Norton's Draught of the Northern Parts of Hudson Bay	26
10	Internal Boundaries	45
11	Areas Ceded Under Treaties 8 and 11	51
12	Routes and Dates of Development of Fur Trade in the Northwest Territories	200
13	Oil and Gas Land Acquisitions North of 60	201
14	Slave River Lowland	202
15	Territorial Roads	203
16	Mackenzie Highway	204
17	National Parks of Northern Canada	205
18	The Physiographic Regions of Northern Canada	206
19	Distribution of Permafrost in Canada	207
20	Daily Mean Temperatures - July	208
21	Daily Mean Temperatures - January	209
22	Natural Vegetation	210
23	Mean Annual Length of Growing Season	211

LIST OF FIGURES

Number		Page
1	Value of Mineral Production 1964-1974	212
2	Acreage Held Under Oil and Gas Permits by Year, Yukon Territory and Northwest Territories, 1964-1974	213
3	Acreage Under Oil and Gas Lease 1965-1974 Yukon Territory and Northwest Territories	214
4	Mineral Claims Northwest Territories and Yukon Territory by Years	215
5	Mineral Claims in Good Standing in the Yukon Territory and Northwest Territories	216
6	Volume of Timber Harvested Annually in the Yukon Territory and Northwest Territories	217
7	Approximate Area Cut Over Annually by Timber Operations in the Yukon Territory and North- west Territories	218

PREFACE

For at least four centuries observations of, and experience in, what is now the Canadian Arctic have been documented. In addition we are fortunate in having a more or less continuous, albeit unheralded, history of research and scientific reporting for nearly a century. In the last decade there has been a proliferation of written material about northern Canada.

I have contributed to the latter in what is generally considered to be the rather unromantic area of public policy, and have been encouraged by the response. Hopefully this study will further provide Canadians with a basis for debating one important aspect of policy, that related to management of northern land.

Policy has been defined as a definite course of action selected from among alternatives, and in the light of given conditions to guide and usually determine present and future decisions. Considered in that light it behooves Canadians first to be aware of the conditions and second to consider the alternatives, before formulating public policy which involves more than one-third of Canada.

During the course of this study I discussed various aspects of the administration and management of northern land with several colleagues in the Department of Indian and Northern Affairs. In particular I would like to thank Mr. A.B. Yates, Director of the Northern Policy and Program Planning Branch, for his cooperation and support. I also wish to acknowledge the co-

operation of Dr. J. Riddick and Messrs. R.J. Goudie, W.F. McIntosh and G.C. Evans in Ottawa; Messrs. B.J. Trevor, G.A. McIntyre (now a member of the Council of the Yukon Territory), and T. Retallack of Whitehorse, Y.T.; Mr. N. Adams of Yellowknife, N.W.T.; and Messrs. G.B. Armstrong, L.V. Brandon and M.J. Morison all of whom are now with the Canadian Department of the Environment.

In addition I wish to thank Mr. James Smith, Commissioner of the Yukon Territory and Mr. S.M. Hodgson, Commissioner of the Northwest Territories and members of their respective staffs, in particular Messrs. W.A. Bilawich, G.L. Privett and R. Raghunathan of Whitehorse and Messrs. John H. Parker, R.A. Creery, A.E. Ganski and R.B. Hall of Yellowknife.

The final typescript was done by Mrs. D. Barber and the maps prepared by Messrs. Bob Norgren and Malcolm Jay; my thanks to them for their cooperation and the care with which they worked.

This paper is extracted from a study conducted in 1974/75 at the University of British Columbia to which I was seconded by the Canadian Department of Indian and Northern Affairs. While there I was fortunate to be able to confer on a regular basis with several members of the faculty including Drs. I. McT. Cowan, H.B. Hawthorn, L.M. Lavkulich, J.R. Mackay, J.K. Stager, and J.V. Thirgood. In particular I wish to thank Dr. J.H.G. Smith who contributed much toward making my sojourn at the university both productive and stimulating.

Over the past 22 years I have had the opportunity to work closely with people whose everyday business was 'using land' and it is those confreres of more than two decades who have unknowingly contributed much to the underlying approaches contained herein.

Finally I wish to thank my family to whom I am indebted. If this study makes a contribution it will be due in large part to the understanding, encouragement and practical help of my wife Etoile, daughters Jean-Ann and Caron, and son John.

INTRODUCTION

In the 1870s westward expansion was the focal point of Canadian public policy. The admission of Rupert's Land and the North Western Territory into the Dominion, British Columbia's entry into Confederation and the promise of a transcontinental railway were all salient issues of that period. In turn these issues gave impetus to the passage of perhaps Canada's most influential land law - the Dominion Lands Act of 1872.

For the ensuing sixty years, the ultimate goal of federal land policy was the settlement of western Canada, and the statutory vehicle was the Dominion Lands Act. The spirit of the Act was embodied in those sections providing free homestead grants to entice settlers into the west and granting vast tracts to railway companies in the form of land subsidies in order to further encourage settlement and as an incentive to construct a transportation network which would sustain the settler.

In the 1970s national attention turned northward, thus developing for Canada a dimension of depth to supplement the one of breadth which was established a century earlier. Although the specific questions differ, the issues remain substantially the same.

In both cases development impelled the use of vast areas of land. Today it is the oil and natural gas fields of the Mackenzie Delta and the High Arctic Islands in place of the fertile agricultural land of the prairies a century ago.

Such development can only be supported by establishing major transportation facilities. Now large diameter pipelines are proposed for

the Mackenzie Valley and the eastern Arctic, whereas transcontinental railways were needed to sustain settlement in western Canada.

Today, the two northern territories are seeking responsible, rather than simply representative government, as was the province of British Columbia before 1871.

Finally, while western settlement was stimulated by the alienation of public land, a major issue of northern development is the need to recognize the legitimate claims to land of the north's native people.

But today there is an additional force at work. I refer to a shifting sense of values which is bringing into perspective the social and cultural implications of development as well as the economic and political ones.

The history of land use in what is now the Yukon Territory and the Northwest Territories, may be considered in terms of three epochs⁽¹⁾ viz.:

- (i) the prehistoric period of hunters and food gatherers;
- (ii) the early fur trade; and
- (iii) the industrial development of natural resources.

Each epoch is characterized by distinct forms of land use as well as prevailing attitudes⁽²⁾ and concepts concerning the land. Values which

(1) Kuznets (1966: 2) in discussing the economic growth of nations defined an economic epoch as being a relatively long period, extending well over a century, possessing distinctive characteristics that give it unity and differentiate it from epochs that precede or follow it.

(2) Tuan (1974: 4) in his discussion of how society views and evaluates nature, including land, defined attitude as a cultural stance formed by a long series of perceptions.

man attributed to land during the first two epochs were reflected in unwritten policy respecting its use. During the third epoch a more formal kind of land policy, embodied in legal and administrative institutions has been introduced.

To what degree does present policy fall short of incorporating prevailing attitudes and values respecting northern land? How can present northern lands policy be expanded to reduce the discrepancies identified? What link is there, if any, between improving the administration and management of northern land and major issues such as native rights and the evolution of the territorial governments? These are some of the questions which I wish to address.

This paper establishes, fairly I believe, that beginning with the Dominion Lands Act, public land policy in the north has been essentially a series of responses to demands for land, rather than a framework within which decisions respecting use and management are made on the basis of the land itself.

Thus the study proposes a new course for the administration and management of public land in the north based first on a consideration of the nature, capability and limitations of the land.

Essentially the approach takes into account the composite value of northern land and incorporates a course of action for guiding and determining future decisions respecting its use and management. It would be incorrect to assume that this study solves the complex problems associated with the native rights question or the future role of the territorial governments in the area of natural resources. Nevertheless by putting one

corner of the house in order, namely the administration and management of northern land, it will hopefully clarify some of the issues surrounding those questions and provide a basis for tackling them.

Finally it is hoped that this paper will encourage debate, both in and out of government, and thereby produce a new era in public policy for the 1.5 million square miles of Canada's northern land.

PART ONE. HISTORIC PERSPECTIVE

Thus at the time Pytheas was cautiously observing the 'frozen north' from its periphery, people of the Dorset culture in the Canadian Arctic were mastering it at its centre....

CHAPTER ONE. THE ORIGINAL PEOPLE

(i) Man's Arrival in the North

Nomadic hunters probably entered the Western Hemisphere between 500 and 250 centuries ago.⁽¹⁾ Migrating eastward across the Canadian Arctic from present day Bering Strait and southward up the Mackenzie Valley, the northern hunter, over thousands of years, imperceptibly evolved a pattern of land use which successfully met his needs. It is the task of this chapter to focus, in a few pages, the activities of several millenia and describe how early people wrested a living from the northern land. Obviously it is not intended to be a definitive work but rather a review of the basic ingredients, hopefully, in a pattern which portrays the life of early man in the north and his close association with the land. The chapter closes with some observations on how those northern people viewed the land which may serve later as a benchmark for comparing changing attitudes as a result of the European's arrival and the establishment of the fur trade.

The exact timing of man's arrival in the Western Hemisphere is of course unknown but recent evidence indicates that he had been on this continent at least 25,000 years before the first European arrived.

Irving (1971:68-72) reporting on his own field work stated that there have been many examples uncovered in the Old Crow Flats of the Yukon

(1) Most authorities cite this as the probable range, see: Jennings (1974); Haynes (1969); Campbell (1963); MacNeish (1972); and Irving (1971).

Territory, of human workmanship in bone and that three of these have been dated to be between 25,000 and 29,000 years old.⁽²⁾

In the southwest Yukon, Johnson and Raup (1964) and MacNeish (1964) reported sites excavated in the Kluane-Dezadeash area revealing a series of cultures dating back 10,000 years. In the Fisherman's Lake area, near Fort Liard, Northwest Territories, Millar (1968) found a site said to be about 15,000 years old. However, available data are too few to evaluate this find and the identity of the material has yet to be satisfactorily explained (Irving 1971:71 and Cinq-Mars 1973:13).

Other evidence of man's early presence in northern North America has been found in caves near Trail Creek of Alaska's Seward Peninsula dated at about 13,000 years ago (Larsen 1968a, 1968b) and a site near Healy Lake, southeast of Fairbanks, Alaska which has been dated at about 11,000 years B.P. (Cook and McKennan, 1970). Farther east, at Acasta Lake south of Great Bear Lake, there is evidence of man's presence 7,000 years ago (Wright 1970). McGhee (1970) reported a date of 2,200 B.P. for a site at Bloody Falls near the mouth of the Coppermine River.

The theory that man migrated to the New World via a northern route is widely accepted (Jennings (1974:52; Haag 1972:18; and Wormington 1971:84). Haag (1972:15) pointed out that the Wisconsin glacier when it reached its maximum, about 18,000 years ago,⁽³⁾ lowered the sea-level by

(2) Old Crow Flats are still used by, and partially provide a source of livelihood for, the Indians of the village of Old Crow, situated on the north bank of the Porcupine River, 67°35'N, 139°50'W, see Stager (1974); Naysmith (1971); Balikci (1963); Leechman (1954).

(3) Pers. Comm., J.R. Mackay.

Map 2 GLACIATION



Unglaciased Areas

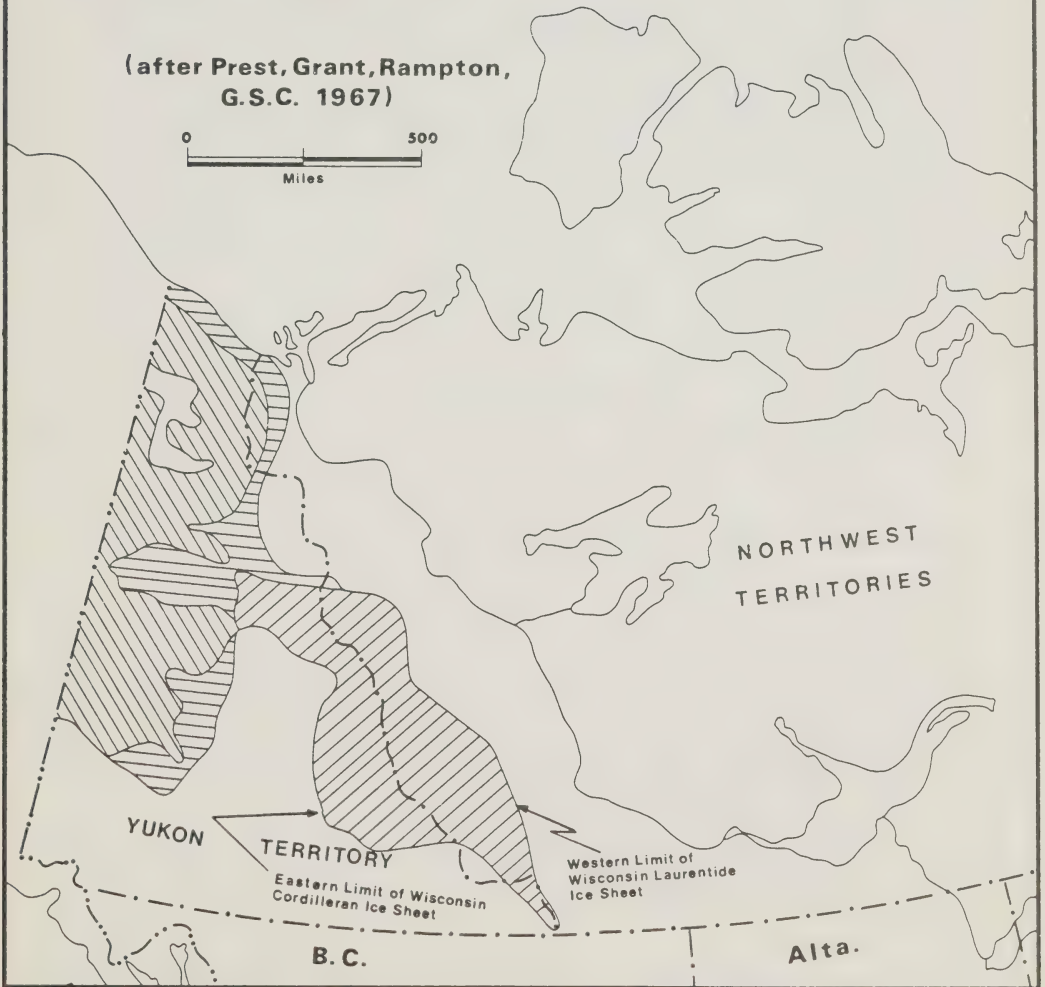


In Part Unglaciased, In Part Covered
By Ice of One or More Glaciations.



Area of Pre-Wisconsin Glaciation Beyond
Limits of Last Glaciation.

(after Prest, Grant, Rampton,
G.S.C. 1967)



as much as 460 feet, exposing a corridor or land bridge 1300 miles in width between Alaska and Asia. This bridge, one in a series ⁽⁴⁾ which allowed the migration to North America of various animals including the mastodon and mammoth, the muskoxen, bison, moose, elk, mountain sheep and goats, probably also provided the access for man to enter the Western Hemisphere.

Although man's migration from Asia was probably a result of his pursuit of large herbivores which were moving eastward, the land bridge did not represent the only means of access. Both Irving (1971:72) and Wormington (1971:85) argued that anyone sufficiently competent to live in the northern forest or tundra was no doubt equal to making a boat and crossing open water or moving across the winter ice.

By the time the first Europeans arrived the aboriginal population of what is now the Yukon and Northwest Territories probably numbered some 35,000 (Mooney, 1928).

Jenness (1967:8-14) has classified Canada's native population on the basis of seven cultural areas. Two of these, the Tribes of the Mackenzie and Yukon Basins ⁽⁵⁾ and the Eskimos ⁽⁶⁾ cover virtually all of

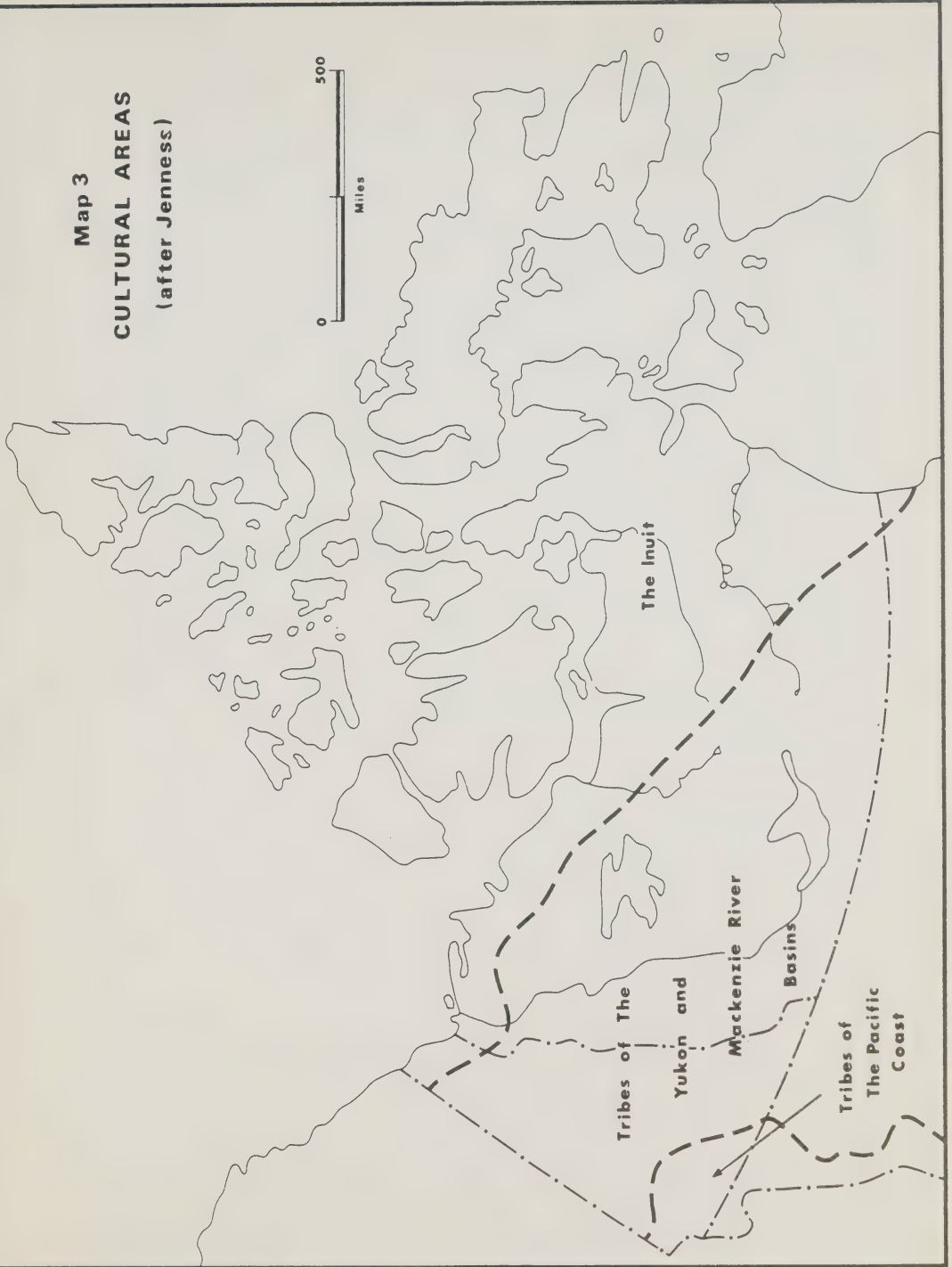
(4) During the Pleistocene a series of at least four glacial and interglacial periods took place beginning about one million years ago (Solecki, 1972).

(5) This cultural area contains nine distinct tribes of which seven reside wholly or in part north of 60°N lat. viz. Kutchin, Nahani, Slave, Dogrib, Hare, Yellowknife, and Chipewyan (Jenness 1967:378), see Map no. 4.

(6) Includes five groups: Mackenzie, Copper, Caribou, Central and Labrador Eskimos. All but the latter were located in the Yukon and Northwest Territories in the 16th century (Jenness 1967:406), see Map no. 8.

Map 3
CULTURAL AREAS
(after Jenness)

0 500
Miles



the two territories. A third, the Tribes of the Cordillera represented by the Tagish of Marsh and Tagish Lakes inhabited a small region in the southern Yukon (see Map no. 3).

Indians of the Mackenzie and Yukon Basins

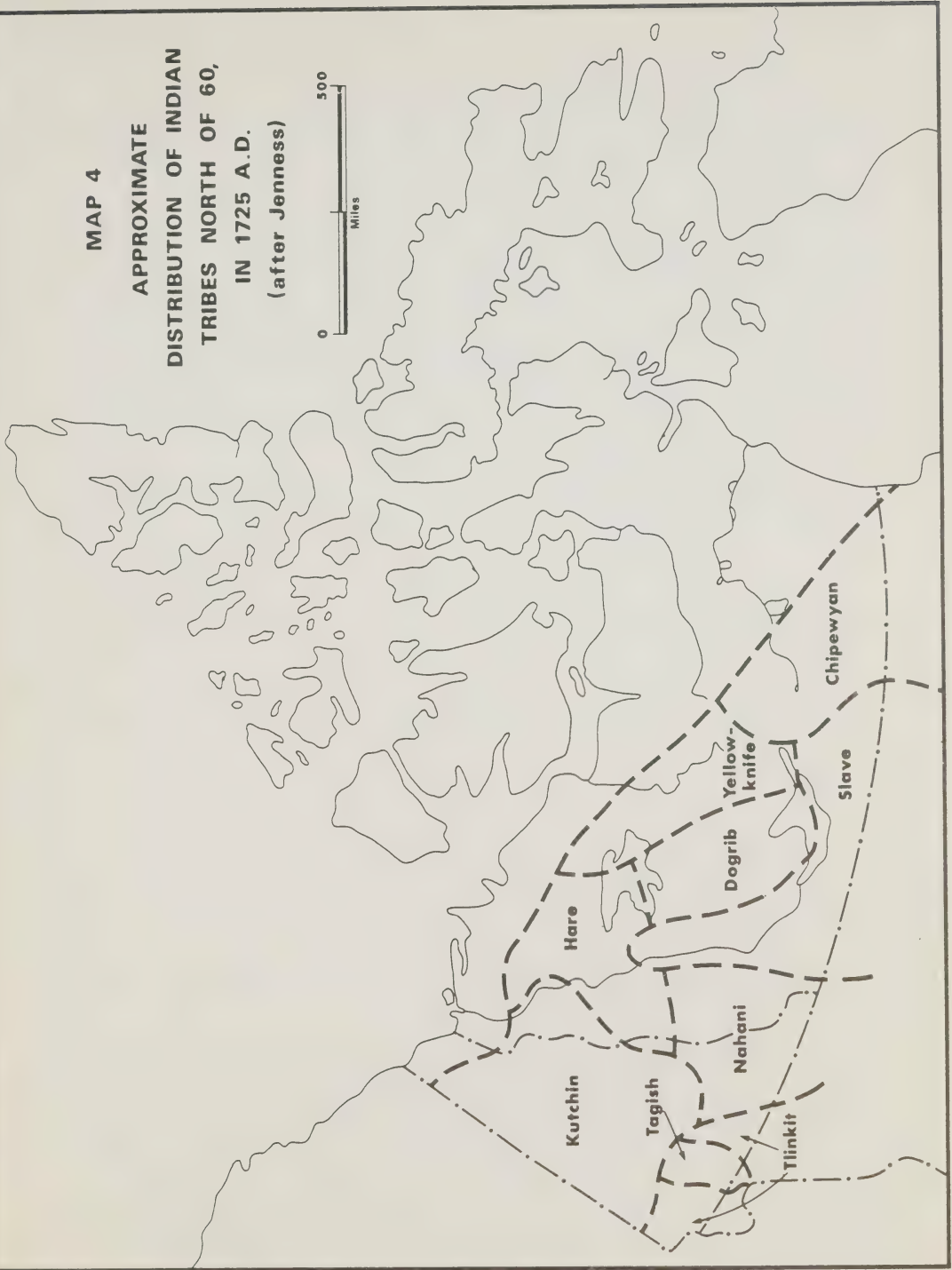
The Tribes of the Mackenzie and Yukon Basins ranged from the treeline, extending roughly from the Mackenzie Delta to the point of intersection of the 60th degree north latitude with the western shore of Hudson Bay, south and west over virtually all of the Yukon and the Northwest Territories. The pre-European population in this area was estimated by Mooney (1928) to be about 12,000.

These tribes consisted mainly of woodland people, and although living near the treeline, some such as the Slave, Hare and Nahani rarely ventured into the barren grounds. The Chipewyan, Dogrib, Kutchin and Yellowknives when in pursuit of game, particularly the migrating barren ground caribou, made frequent expeditions into the area north of the treeline.

These aboriginal people as well as the Inuit farther north were completely self-sufficient having evolved a way of life which represented a true closed society. The seasonal characteristics of the game and fish upon which they were heavily dependent were reflected in their dwellings, hunting patterns and social organization.

The migratory nature of the northern hunter had a direct effect upon the social structure in which he lived. The basic unit of social organization was the family, dwelling together. In turn, related families grouped together in small bands in order to hunt and fish in specific geographic areas.

MAP 4
APPROXIMATE
DISTRIBUTION OF INDIAN
TRIBES NORTH OF 60,
IN 1725 A.D.
(after Jenness)



The band although it was a relatively stable unit with territorial boundaries, did fluctuate in size with family groups dispersing and uniting depending on the season and the nature of the hunt. The tribe as an amalgamation of several bands did not exist in the northern context. Although several bands might unite for a few days during a tribal festive period the only clearly defined political unit was the band. Tribes were nothing more than groups of scattered bands with similar speech and customs and common interests due to intermarriage but with no central governing authority.

Each family group and band had a nominal leader in whom was vested no real authority. Because the composition of the bands varied, so did their leaders. Law and order within the band was based on public opinion rather than a legislative structure. Rules of conduct were handed down by word of mouth and where third party intervention was needed an informal council of hunters was formed to aid in settling local disputes.

The Inuit⁽⁷⁾

Whereas the distribution of the northern Indian was confined essentially to the Yukon and the forest region of the Northwest Territories, the Inuit and indeed their ancestors dating back at least 5000 years, were present in various locations throughout the Arctic from Alaska to Greenland.

(7) The Inuit of Canada prefer to use their own name for themselves rather than 'Eskimo' which is a Cree word meaning 'eaters of raw meat'. Jenness (1967:408) pointed out that despite the name, the Eskimo always preferred cooked food and ate raw meat and fish only when driven by necessity.

In Canada the Eskimo way of life, defined by Taylor (1968:2) as being a distinctive culture and economy adopted to a treeless country, divides into four major periods or stages, viz.: Pre-Dorset, Dorset, Thule, and Central Eskimo or Inuit.

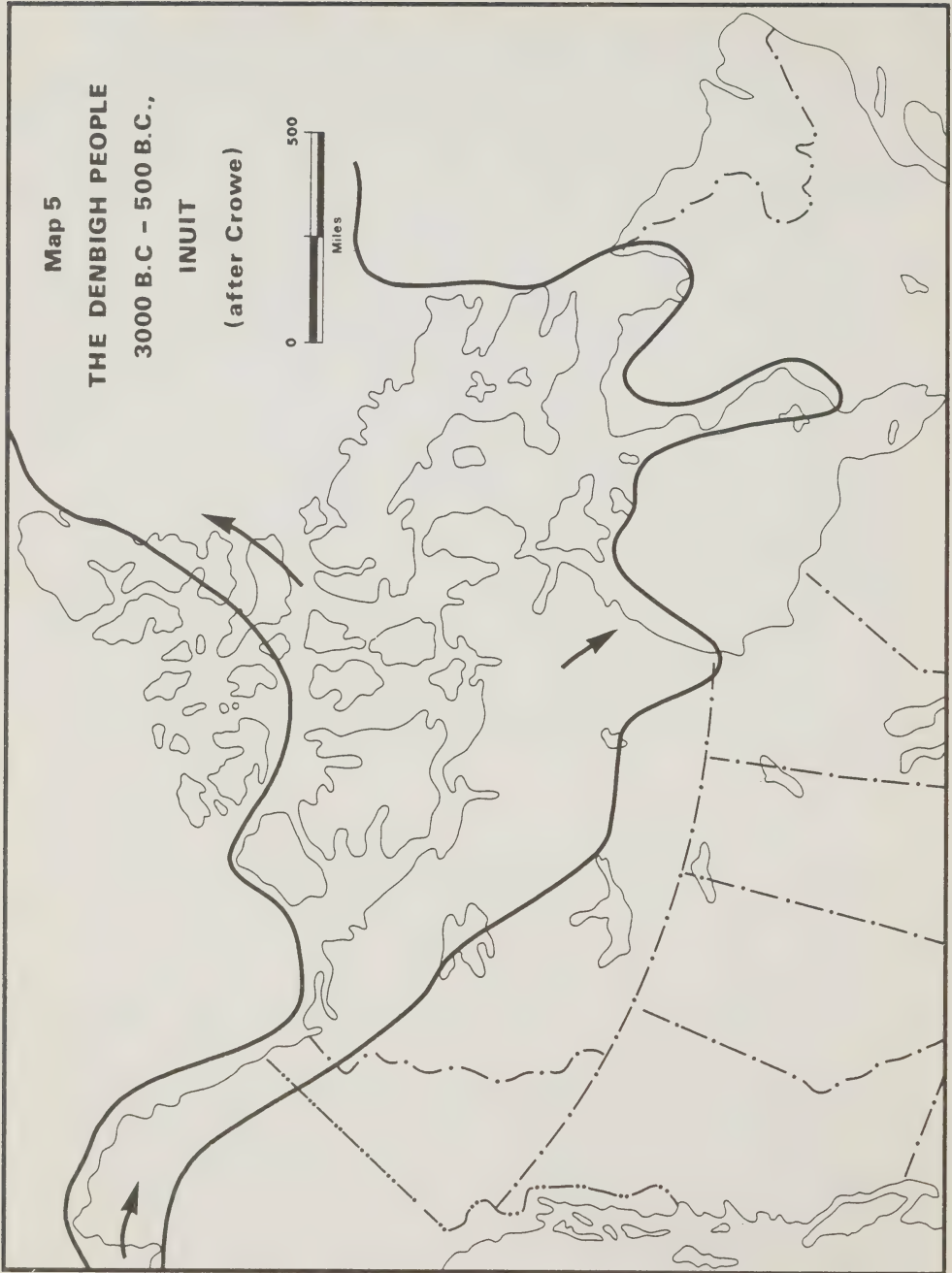
The predecessors of the Pre-Dorset, the Denbigh people, came from the Bering Sea region (Giddings 1964:243, and Taylor 1971:160) and apparently these northern hunters were well equipped to survive in the Arctic. In this regard Giddings ⁽⁸⁾ stated that "The flint work of the Denbigh flint complex, the oldest cultural horizon yet identified in the Bering Strait region, is not only unique but possibly the world's most sophisticated. It shows no signs of being brought there in total from elsewhere".⁽⁹⁾

The Denbigh people moved eastward across northern Alaska, the central Canadian Arctic, the eastern arctic islands to Greenland and ultimately down into Ungava Peninsula and the west coast of Hudson Bay (see Map no. 5).

Sites of the Pre-Dorset culture, which refers to the eastward development, through Canada, of the Denbigh Flint Complex, indicate that those people lived in small, widely scattered, nomadic bands. Moving seasonally in order to hunt caribou and seal probably supplemented by fish and birds in summer, the Pre-Dorset culture persisted to about 800 B.C.

(8) Discovered the 'Denbigh Flint Complex' at Cape Denbigh, Alaska, on the shore of the Bering Sea in 1948.

(9) Giddings, J.L. "Early Man in the Arctic", June 1952 in *Early Man in America - Readings from Scientific American*, ed., R.S. MacNeish, W.H. Freeman and Company, San Francisco, 1972.

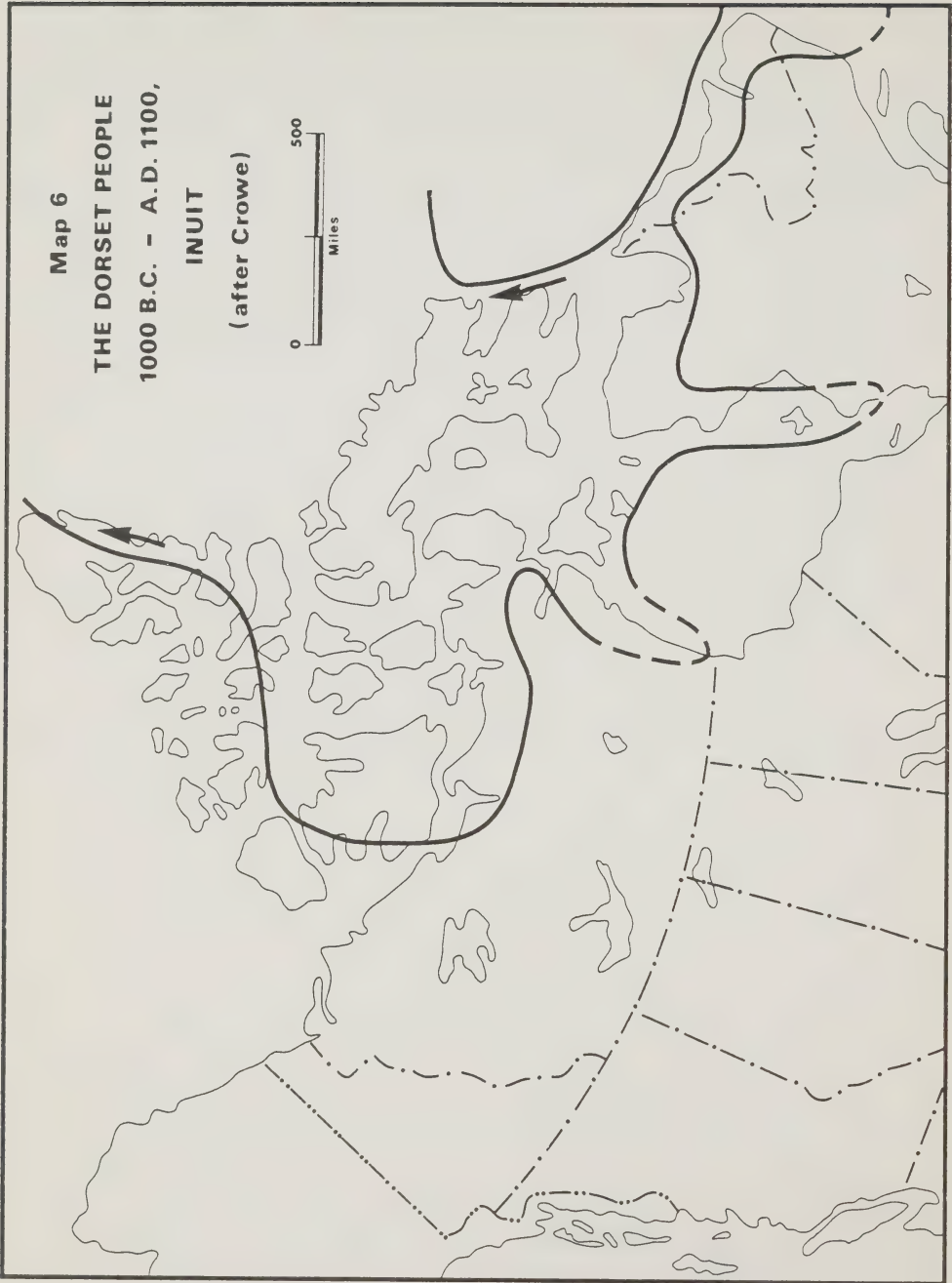


At one time the Dorset culture was thought to have evolved from that of the Indian tribes of the Great Lakes and St. Lawrence Valley region, however, it is now generally agreed that it developed first within the Canadian Eastern Arctic from the Pre-Dorset culture (Taylor 1971:163) (see Map no. 6). The Dorset people appear to have lived a seasonally nomadic life similar to their Pre-Dorset ancestors. One distinctive difference in the two cultures was the Dorset art which was characterized by delicate carvings in ivory, antler, and bone, depicting animals, fish, birds and humans. The Dorset also developed blades of ground and polished slate which seemed to have no connection with the Pre-Dorset culture and they may have invented the snow house (Taylor 1971:164). About A.D. 900 the Dorset culture began to disappear and to be replaced by the Thule culture, the third major period in Canadian Eskimo prehistory.

Migrants of the Thule culture whose origin was, as in the case of the Pre-Dorset, the region of the Bering Sea, began moving eastward from Alaska about 900 A.D., and along the arctic coast and northward through the arctic islands (see Map no. 7). The Thule people were even better equipped to live in a treeless country than were their ancestors. The Thule hunter made extensive use of dogs for hunting and hauling sleds thereby increasing his efficiency and mobility,⁽¹⁰⁾ whereas there is little evidence that the Dorset people had domesticated the dog.

Perhaps the most significant feature of the Thule culture was the development of gear and expertise with which to hunt the baleen whale.

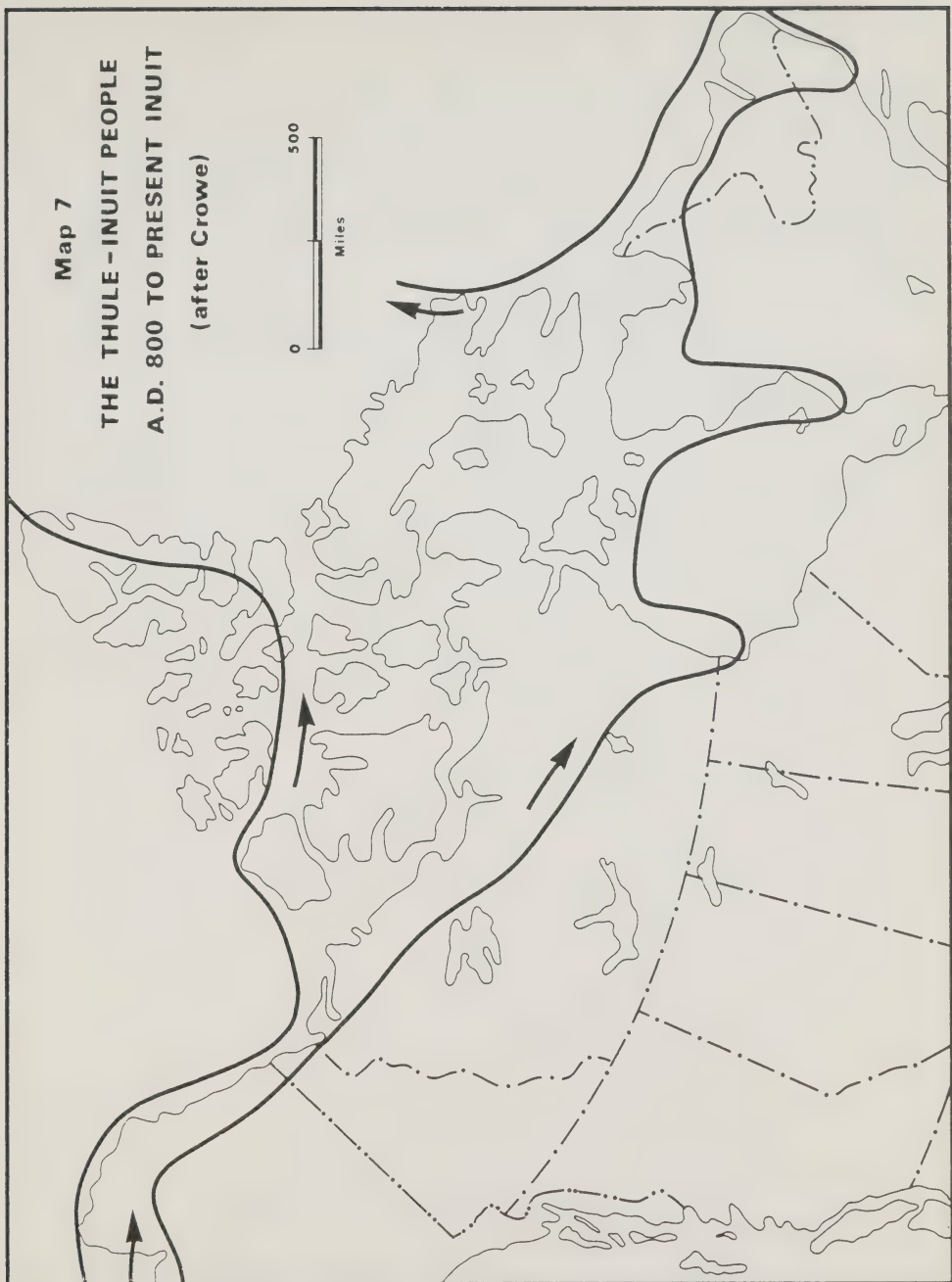
(10) Crowe (1969:21) suggested that the rapid spread of the Thule culture through the Arctic was probably due in large part to dogteam transportation.



Map 7

THE THULE-INUIT PEOPLE
A.D. 800 TO PRESENT INUIT
(after Crowe)

0 500
Miles



This relatively large and constant source of food available to those early whalers allowed them to lead less nomadic lives and resulted in the construction of larger and more permanent settlements. The Thule people also used snowhouses for temporary accommodation. The art of construction was probably learned from the Dorset culture since snowhouses were not an Alaskan feature (Taylor 1971:167).

The Central Eskimo culture was very similar to that of the Thule people from which it evolved. This fourth and final stage in the cultural evolution of the Canadian Eskimo appeared in the 18th century. These recent people derived directly from the Thule culture which ended mainly because of a marked decline in whale hunting. Taylor (1971:168) considered that the decline in whale hunting may have been in part a result of a harsher climate during the period 1650-1850⁽¹¹⁾ reducing the whales' summer range; also the presence of the European whalers further reduced the whale population.

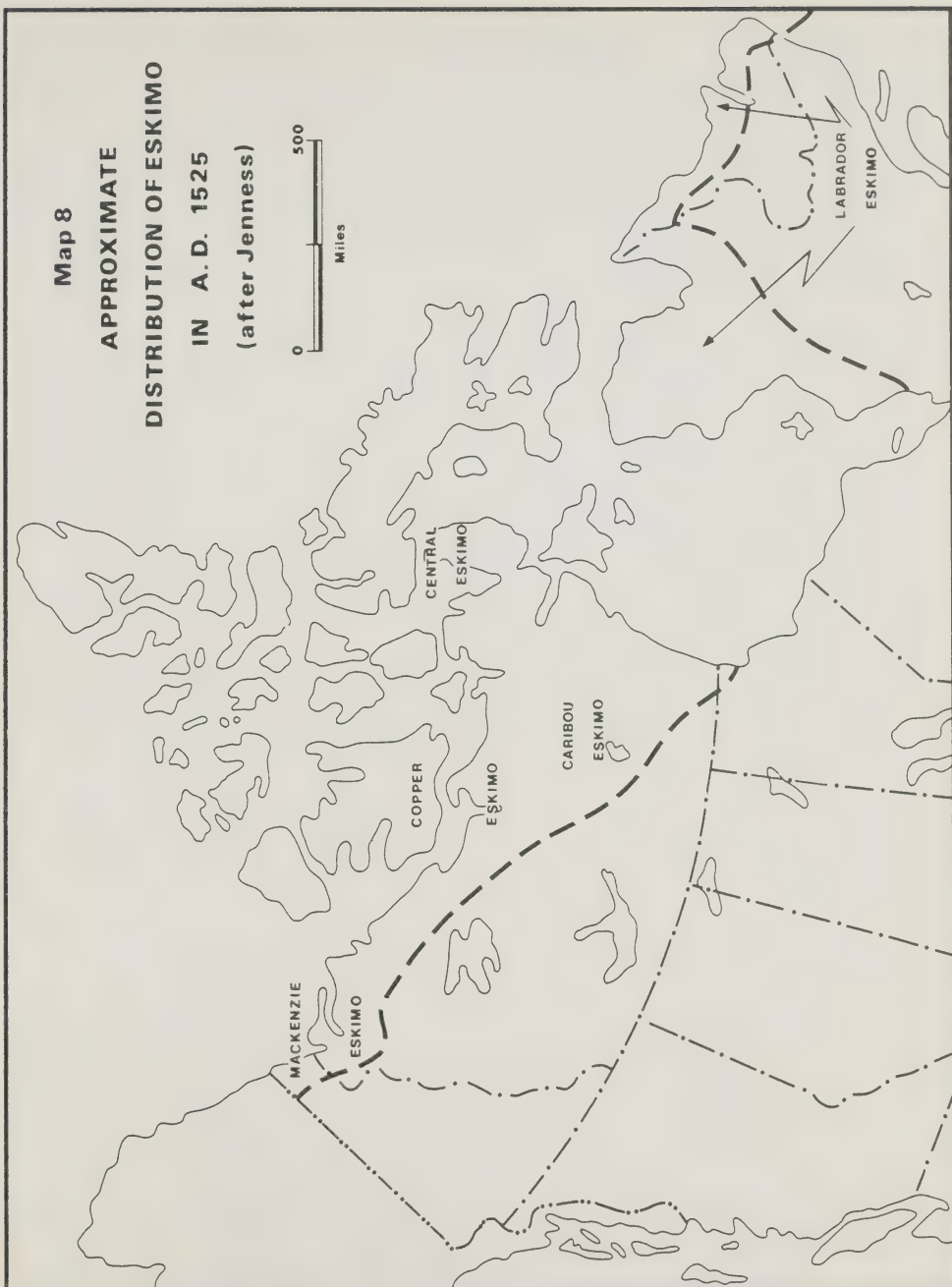
With the decline in whaling the Thule had to resort to a more nomadic life, relying upon the more scattered herds of seal and walrus and in the process abandoned their large permanent villages and gradually shifted to the snowhouse on the sea ice. The change from Thule to Central Eskimo culture was completed with the arrival of the European.

Reference has already been made to the skills of the early ancestors of the present Eskimo, as illustrated by the Cape Denbigh site,

(11) The 'Little Ice Age' from 1650 to 1850 may also have been the reason for the Thule population withdrawing from the Canadian Arctic Islands of Ellesmere, Devon, Somerset, Cornwallis and Bathurst (Taylor 1971:168).

Map 8
APPROXIMATE
DISTRIBUTION OF ESKIMO
IN A.D. 1525
(after Jenness)

0 500
Miles



in chipping flint for blades and projectile points. Subsequent cultures, building on this artisanship, excelled in the manufacture of various tools, weapons and utensils. From flint and quartz were made, for example, arrowheads, speartips, knife blades, saws and drills; and from ground slate, single and double-edged knives were made.⁽¹²⁾ From bone, antler and ivory the Eskimo learned to manufacture such items as: shoeing for sled runners; ice-chisels; arrows; harpoon parts; various handles; needles and thimbles.

The Eskimo talent for carving was not limited to meeting their material needs but included sculpturing and engraving which reflected a love of art. For examples of some of this early work see Taylor (1968:10-11) and Jennings (1974:348-349). It should be noted too that their lives were made richer through the expression of their heritage in song, story and dance and through various games which they played.

General rules of conduct handed down by each generation regulated life within the small but widely scattered Eskimo groups. Even less structured than the bands of northern Indians, Eskimo communities recognized no chiefs and members were never coerced or made to comply with pre-set conditions.⁽¹³⁾

(13) On this point Birket-Smith (1929:1260) stated "among the Caribou Eskimo there are no chiefs, no clan system and no lay bonds upon the initiative of the individual. They know no government."

CHAPTER TWO. THE INTRODUCTION OF WESTERN CULTURE

The first record of polar discovery is that of Pytheas, a Greek citizen of considerable and diverse talents, from the Mediterranean colony of Massilia. In 320 B.C. Pytheas, having completed a commission for the merchants of Massilia, sailed north and west from Britain for six days to Thule,⁽¹⁾ an Arctic Island.

Pytheas described the frozen sea surrounding Thule as follows (Strabo c. 7 B.C.:399):

"...there was no longer either land properly so-called, or sea, or air, but a kind of substance concreted from all these elements, resembling a sea-lungs - a thing in which, he says, the earth, the sea and all the elements are held in suspension; and this is a sort of bond to hold all together, which you can neither walk nor sail upon."

Convinced that he could proceed no further, he returned to the Mediterranean. Thus at the time Pytheas was cautiously observing the 'frozen north' from its periphery, people of the Dorset culture in the Canadian Arctic were mastering it at its centre and would leave for future civilizations proof of their culture in the form of fine carvings of ivory and antler.

Following the discovery, settlement and colonization of Iceland and Greenland by the Vikings in the ninth and tenth centuries A.D., respectively, the voyages of Jerjulfsson and Eriksson led to the discovery of Baffin Island, Labrador and Newfoundland in about 1000 A.D.

(1) Pytheas described Thule as being "...the most northerly of the Britannic Islands, is farthest north, and that there the circle of the summer tropic is the same as that of the arctic circle." From this Strabo (c. 7 B.C.:441) deduced the latitude of Thule to be 66° north. Kerwan (1959:16) suggested that Thule was probably Iceland.

By the 13th century the Norse colonies on Iceland and Greenland had begun to wane. Finally the combination of a progressively colder climate and a decline in Norwegian sea-power (Kerwan 1959:18) led to the abandonment, in the 15th century, of Norway's crown colony in Greenland. However, coincident with the termination of colonial activities in the north Atlantic was a new thrust, namely Europe's determination to find a sea-route to the kingdoms of Cathay.

The voyages of Columbus, Cabot and Cartier in the late 15th and first half of the 16th centuries had done little to sustain interest in the possibility of a western passage to the Orient. As a result Britain turned her attention eastward in search of a North-East Passage, around Russia, and for twenty-five years following 1551⁽²⁾ she actively pursued exploration and trade in that region.

By 1576 a rekindled interest in the possibility of a North-West route to Cathay again shifted Britain's attention to the New World and the Canadian Arctic.

In June of that year Martin Frobisher sailed for the Canadian Arctic, commissioned by the Muscovy Company to search for a North-West Passage. Christopher Hall, Frobisher's master aboard the ship Gabriel recorded, "The 11 August we found our latitude to be 63 degr. and eight minutes, and this day we entered the streight."⁽³⁾

(2) On December 12, 1551, 'The Mysterie and Companie of the Merchants Adventurers for the Discoverie of Regions, Dominions, Islands and Places unknown' was established. This Company of Merchant Adventurers, with Sebastian Cabot its first governor, directed its earliest activities to the search for a North-East Passage (Kerwan 1959:28).

(3) Now known as Frobisher Bay at the south-eastern tip of Baffin Island.

It is nearly 400 years since Frobisher's three voyages to the Canadian Arctic. Although they marked the beginning of an era of discovery, they had little, if any, lasting effect upon the life of the northern native. It would be another 200 years before Europeans would actually penetrate the closed system of which the northern Indians and Inuit had been a part for thousands of years.

Enter the Trader

Indians around the Gulf of St. Lawrence had already been aware of the European's interest in furs by the time of Cartier's arrival there in 1534 (Bigger 1901:49) and during the next 100 years fur-trading flourished in the region of the St. Lawrence and Ottawa River Valleys. By the middle of the 17th century French-Canadian fur-traders were travelling as far as Lake Huron and Lake Superior in order to acquire new sources of fur and maintain the existing trade in Canada.

Two of these fur-traders,⁽⁴⁾ convinced that the best approach to expansion of the Canadian fur-trade lay via Hudson Bay rather than the St. Lawrence, went to London where they received an audience from King Charles II. The two traders apparently made their point for a group of London financiers, none of whom had to contribute more than 200 pounds each (Rich 1960:33), provided sufficient funds to support a voyage to Hudson Bay.

In June 1668, two ships, the Nonsuch and the Eaglet, left London bound for Hudson Bay. Only the Nonsuch, with Groseilliers aboard, reached her destination; the Eaglet with Radisson returned to Plymouth in August of

(4) Medard Chouart, Sieur des Groseilliers, and Pierre Esprit Radisson.

the same year. A fort was built at the mouth of the Rupert River (Fort Charles) and the crew wintered there carrying on successful trade with the Indians. In October 1669 the Nonsuch returned to London where her cargo of fur was quickly sold for £1,379 6s. 10d. (Rich 1960:42). A northern fur-trade appeared to be a reasonable commercial venture and from this beginning it proceeded to shape the pattern of development and land use in the Canadian North over the next 200 years.

Following the success of the first trading expedition, steps were taken to safeguard the future position of the project's financial contributors. In April 1670, Prince Rupert, cousin of King Charles II, put forward to Privy Council a draft charter on behalf of those who had participated in the first venture and on May 2nd, 1670 a Charter was granted under the Great Seal of England. Under the Charter the eighteen 'Adventurers' who had by May 1670 subscribed to support the voyages were incorporated by the name of "Governor and Company of Adventurers of England tradeing into Hudson's Bay", and Prince Rupert was nominated Governor.

"sole Trade and Commerce of all those Seas Streights Bayes Rivers Lakes Creekes and Soundes in whatsoever Latitude they shall bee that lye within the entrace of the Streights commonly called Hudsons Streights together with all the Landes and Territoryes upon the Countryes Coastes and confynes of the Seas Bayes Lakes Rivers Creekes and Soundes aforesaid that are not actually possessed by or granted to any of our Subjectes or possessed by the Subjectes of any other Christian Prince of State".

These lands, to be known as Rupert's Land, were considered as a plantation or colony and the Company claimed the rights to minerals and fish as well as the exclusive trade and the land itself.

The 18th century also saw a renewed interest in the north's mining potential. Beginning with Henry Kelsey's voyage in 1719⁽⁵⁾ at least eight separate mining ventures were undertaken, none of which was successful (Cooke and Holland 1971:503,699).

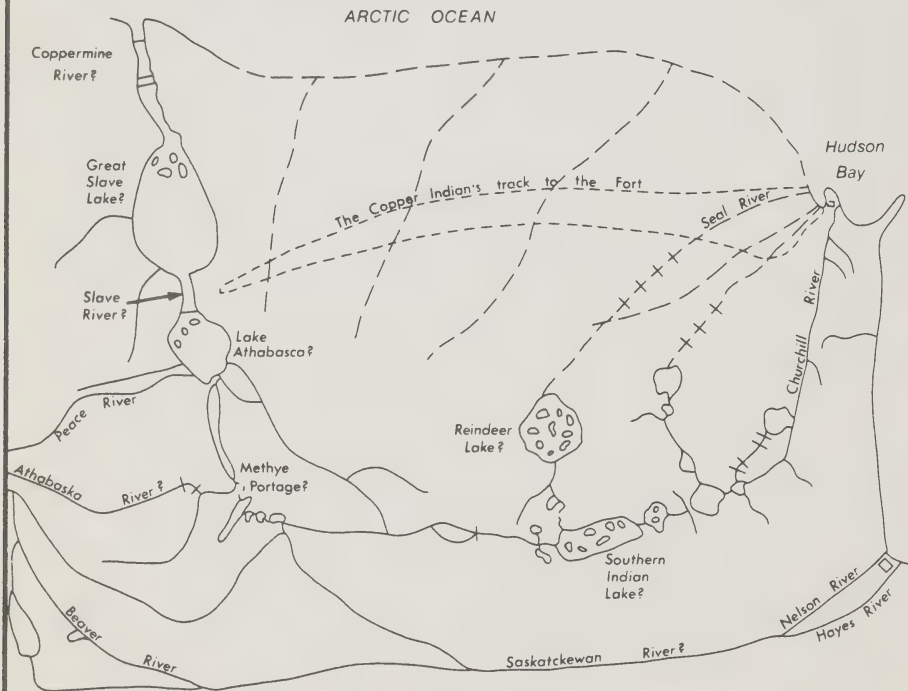
As early as 1715 the Hudson's Bay Company had sent one of its men, William Stewart, as far west as Great Slave Lake, in order to persuade the Chipewyan Indians to trade at York Factory. A map, prepared in 1760 for Moses Norton, the Governor of the Company, situated at Prince of Wales Fort, reflects the European's knowledge of Canada west of Hudson Bay at that time. The map based on the journeys of Norton and Stewart as well as information provided by the northern Indians and Inuit covered a considerable area including the Coppermine River, Great Slave Lake, Lake Athabasca and the Peace, Athabasca, Saskatchewan, Nelson and Churchill Rivers (Map no. 9).

Having some knowledge of the vast region to the west of Hudson Bay and encouraged by the reports from Indians trading at the fort, Norton commissioned Samuel Hearne to journey to the Coppermine River in search of copper.⁽⁶⁾ In 1772, after two earlier attempts, Hearne reached the Coppermine River and descended it to its mouth but did not find copper ore in sufficient quantities to warrant further interest.

(5) Sailed northward along the west coast of Hudson Bay from Churchill as far as 62°40'N, in search of copper and to develop trade with the Eskimo.

(6) The instructions to Hearne from Norton dated Nov. 6, 1769 stated in part: "...a river represented by the Indians to abound with copper ore...and is supposed by the Indians to empty itself into some ocean the Arctic Ocean ...Be careful to examine what mines are near the river, what water there is at the river's mouth, how far the woods are from the sea-side...And if the said river be likely to be of any utility, take possession of it on behalf of the Hudson's Bay Company..." (Hearne 1968).

MAP 9
MOSES NORTON'S DRAUGHT
OF THE NORTHERN PARTS OF
HUDSON BAY, RE-ORIENTED
AND AMENDED BY
R.I. RUGGLES (1971)



It was the formation of the North West Company ⁽⁷⁾ which eventually spurred the Hudson's Bay Company to alter its established trading pattern around Hudson Bay and expand westward through northern Canada.

By 1786 the North West Company had established a post on the south shore of Great Slave Lake, now Fort Resolution. ⁽⁸⁾ Hoping to open up new trading routes to the Pacific Ocean on behalf of the North West Company, Alexander Mackenzie, in 1789, followed the river which now bears his name its entire length from Great Slave Lake to the Beaufort Sea. Although personally disappointed in not reaching the Pacific, his discovery opened up a vast new region and by 1817 the North West Company had established several posts down the Mackenzie River Valley. ⁽⁹⁾

Innis (1956:279-280) referred to the 'violent efforts' of the North West Company to check the westward advancement and subsequent encroachment on the Athabasca ⁽¹⁰⁾ of the Hudson's Bay Company during the first two decades of the 1800s. This struggle ultimately led to the amalgamation of the two companies in 1821.

(7) The first North West Company co-partnership was formed in Montreal in 1779 (Campbell 1957:1); subsequent reorganizations involving competitors took place in 1787 and 1804 (Stager 1962).

(8) This was the first trading post to be established north of 60.

(9) Including Lac La Martre 1789, Trout Lake River 1796, Great Bear Lake Fort 1799, the 'Forks' (Fort Simpson) 1803, Fort Good Hope 1804, Fort Liard 1805, Fort Norman 1810 and Willow Lake River 1817. For a discussion of the history of trading posts in the Mackenzie Region up to 1850 see Stager (1962).

(10) The Hudson's Bay Company built Harrisons House, near the eastern end of Lake Athabasca in 1819, the North West Company having earlier abandoned its post situated nearby (Cooke and Holland 1971:916).

One of the first acts of the amalgamated Company in re-organizing the Mackenzie District was the construction of a new post at the junction of the Liard and Mackenzie Rivers in 1822 replacing the 'Forks' built by the North West Company in 1803. This new post, named Fort Simpson after Governor George Simpson⁽¹¹⁾ became the administrative centre and distributing point for other posts in the Mackenzie Valley.

Between 1823 and 1834, A.R. and J.M. McLeod, Murdock McPherson, and John Hutchinson all led expeditions on behalf of the Hudson's Bay Company into the region of the Liard, Nahanni, Beaver and Smith Rivers. In 1829 Fort Halkett was established on the Liard River and in 1832 was relocated at the junction of the Smith and Liard Rivers.

It was not until the 1840s that the Company's operation extended into the Yukon. In the face of hostile opposition from native middlemen, Robert Campbell established forts⁽¹²⁾ at Dease Lake (B.C.) in 1837, Frances Lake in 1842⁽¹³⁾ and Fort Selkirk at the junction of the Pelly and Lewes (Yukon) Rivers in 1848.

(11) Following amalgamation, March 26, 1821, Governor George Simpson was placed in charge of the whole trading territory and four departments were formed: The Canadas; the Southern, east of Hudson Bay; the Western, west of the Rockies; the Northern, the territory between Hudson Bay and the mountains and between the United States and the Arctic Ocean (Innis 1956:285).

(12) Considering the hardship and risk inherent in the efforts of men such as Campbell to expand the Company's sphere of influence, promotions did not come easily. Governor Simpson in a letter to Campbell dated July 4, 1837 said, "...pleased at your spirited tender of your services to establish Dease's Lake...which has led to your promotion to the rank of Clerk." Campbell in his Journals 1808-1853, noted that hitherto he had been rated as postmaster.

(13) The first post established in the Yukon Territory.

At the same time as efforts to develop trade in the southern Yukon were underway, new posts were being built in the north. In 1840 Peel's River post, later known as Fort McPherson, was established on the Peel River by John Bell. In 1847 Alexander Murray established Fort Yukon for the Hudson's Bay Company at the confluence of the Porcupine and Yukon Rivers and began trade with the Natsit (Chandalar) Kutchin Indians in competition with the Russian traders.

Following Campbell's discovery in 1851 that the Porcupine was a tributary of the Yukon, the difficult Liard River - Frances Lake route into the Yukon was abandoned. Thereafter, goods were taken down the Mackenzie to the Peel, over the portage to the Bell and down the Porcupine to Fort Yukon (Innis 1970:291).⁽¹⁴⁾ Fort Yukon, the most westerly of the Company's posts, was subsequently moved twice up the Porcupine River when it was found twice to be on the Alaska side of the U.S.-Canadian border (Stager 1974:29).

The first post built in the western Arctic exclusively for Eskimo trade was established at Fort Anderson in 1861. Roderick MacFarlane, who had explored the Anderson River in 1857 and revisited it on several occasions to trade with Eskimos, received permission from the Hudson's Bay Company to build a post there in 1859. In the spring of 1861 he cut timber on the upper reaches of the Anderson near the Carnwath River. He then rafted the timber down the Anderson to a site some 180 kilometres from its

(14) This route and the confluence of the Porcupine and Yukon Rivers had been discovered by John Bell in 1845, however it was not until Campbell had traced the Yukon River from the Pelly River to the Porcupine that its importance was realized.

mouth at about lat. $68^{\circ}30'N$ where he constructed the fort (Cooke and Holland 1972:392). It was intended that Fort Anderson would become a focal point of Eskimo trade and reduce the influence of Russian traders who had established an Eskimo trading chain along the north coast of Alaska. Stager (1967:53) suggested that the fort was poorly located for this purpose and was a strong factor in the decision to abandon the post in 1866.

Changing Patterns

In part as a result of their total dependence upon the land for food, clothing, shelter and energy, the land also came to have a philosophical and religious meaning for native people of the pre-contact period. For example, the Athabaskan's concept of earth (dinedah), as the woman and the sky, as the man. Dinedah was considered the beginning, the spirit from which life came, the place from which succour came and the place to which the spirit returned (Blue 1974:193).

With this all-inclusive concept of land it is not surprising that neither the northern Indians nor the Inuit considered it in terms of private property. Jenness (1967:124) pointed out that land was never sold or alienated in any way.

Although personal property passed between individuals there were no individual owners of real property since land used for hunting, trapping and fishing purposes belonged to the band and was a prerequisite for survival. Any rules pertaining to land were really game laws, for example the need for a group to obtain permission before hunting in another group's area.

Prior to the arrival of the fur-trader and whaler the northern native was self-sufficient, living in balance with the natural conditions surrounding him. To varying degrees, he became less independent with the introduction of manufactured goods and European food staples. His natural desire to acquire commodities which would apparently "make life easier", initiated a series of material, economic, social and cultural changes.⁽¹⁵⁾

Trading commodities included guns, ammunition, steel tools, fish nets and implements, such as axes, ice chisels, knives, needles, metal pots and manufactured clothing of wool and cotton. These were followed by food staples such as flour, rice, sugar and tea and later items which pertained specifically to trapping such as steel traps, snare wire, canvas tents, wooden boats and canvas canoes.

Caribou hunting and sealing became much more of an individual effort when the rifle replaced the bow, arrow and spear. Thus hunting, and fishing with fish nets, became less of a communal undertaking and, in many cases, the group or camp ceased to function as an economic unit. This in turn resulted in the replacement of the strong sharing and co-operative ethic with one whereby the hunter retained his own catch.

As the hunter became more dependent upon ammunition and more accustomed to the use of other consumables such as imported foodstuffs and manufactured clothing, he became more firmly locked into the trapper-trader

(15) The impact of the Europeans upon the Inuit and northern Indians during the 18th, 19th and early 20th centuries has been discussed by several authors including: Balikci 1960, 1968; Hargrave 1966; Honigsmann and Honigsmann 1965; Jenness 1964, 1968; Stager 1974; Vanstone 1963; and Wolforth 1971.

relationship. The trapper's allegiance was less to his neighbour, although, if possible, no one was allowed to starve, and more to the trader to whom he was often in debt.

The life of the hunter became more regulated as he attempted to meet his financial obligations and to provide the trade-goods to which he and his family had become accustomed. In addition to spending a substantial portion of his time on the trapline it was necessary to make regular periodic trips to the trading post. In discussing the Indians of Old Crow, Stager (1974:46) stated that maintaining traplines resulted in a greater dependence upon sled-dogs hence additional energies were devoted to providing meat and fish to feed them.

Trapping became a family enterprise and this had the effect of reducing the cohesiveness of the group or band, characteristic of the pre-contact period. It also altered the long-standing concept of land use.

Individual families, with the trapper either working alone or with one partner, became the working unit. This led to the sub-division of group hunting areas into traplines. As with the meat-sharing ethic, the communal concept of land rights, in some instances gave way to individual rights and the concept of 'land ownership' developed. When the Old Crow Indians began trapping, "ownership" of an area applied only to the time that a person trapped there. Through an informal process, areas were allocated and agreed upon periodically and, over a period of time "ownership" of any one area might vary. Eventually a trapper became identified with a certain area and it became known as 'his' trapline (Stager 1974:40).

This approach to traplines and land was not universal. For example as late as 1936 the Eskimo trapper of Pelly Bay in the eastern Arctic had no specific trapline (Balikci 1960:17). It was pointed out by Balikci (1960:20) that the Povungnituk Eskimo had traplines and indeed recognized the rights of an individual or a family to land and accepted the notion of inheriting a trail from one's elders. Thus, following the arrival of the European, land assumed another dimension (the means to acquire a new range of goods) and, in some cases, the concept of individual, as opposed to group, land rights evolved.

Although hunting and trapping still represent an important aspect of northern land use, particularly to the native people, the pattern of land use accompanying this activity has undergone considerable change in the last two to three decades.

Honigmann and Honigmann (1965:77) referred to the concept of 'dual allegiance to land and town'. As a hunting and trapping society becomes further exposed to western culture they see three groups emerging: those who maintain a strong allegiance to the land and oppose any action which might threaten their capability to obtain country food;⁽¹⁶⁾ those who have chosen 'town careers'; and finally those who shift back and forth between a life on the land and in a community. Wolforth (1971:2) stated that in the transformation of a hunting and trapping society to an urban one there is, in addition to the social adaptation which takes place within the settlement, a spatial transformation which takes place on the land as "a dispersed pattern of resource utilization is gradually abandoned".

(16) Reference here is to hunting for country food as compared to big-game sports hunting.

In discussing the Inuit of Foxe Basin in the eastern Arctic during the limited contact period prior to 1950 and the period following, Crowe (1970) referred to certain technological changes and their effect upon the equilibrium which existed between the hunter and the land. Under the traditional 'camp system' each settlement group was situated in such a way as to be exposed to a full range of animal species and a full cycle of seasonal activities. With the introduction of the powered canoe some of the full-time hunters abandoned camp life, moved to Igloolik or Hall Beach and visited their camp territories at certain times of the year, perhaps working for wages in the intervening periods.

Taking this concept one step further Stager (1974:46-54) provided the following account of the Indians of Old Crow, Y.T. In the 1930s and '40s the population of Old Crow was distributed in a number of small settlements or trapping camps along the Porcupine River. A regular seasonal pattern was followed whereby winter was spent on the trapline, the spring at Old Crow Flats harvesting muskrat, followed by a period at the village of Old Crow or other Porcupine River sites for purposes of trading and visiting. In summer, people began moving back toward the traplines, stopping at fish camps and later to hunt caribou, en route. During this period the hunting and trapping areas of the Old Crow people covered approximately 25,000 square miles.

In the 1950s the village of Old Crow became more of an established settlement, people gravitated to it and built log houses in which to summer. Increasingly more time was spent in Old Crow and when the trappers and their families did leave it was to camps closer to the settlement. By 1960 the area of land utilized for hunting and trapping had been reduced to 15,000 square miles.

Between 1960 and 1973 all of the Old Crow people have moved to the village on a permanent basis and although there are one or two winter camps located nearby they are occupied only intermittently. Today virtually all of the hunting and trapping except the muskrat trapping on the Old Crow Flats, is done on a commuter basis from Old Crow. Although much less time is now spent on the land and considerably less area covered (approximately 1500 square miles) the importance of caribou to the community today is no less than "long ago"; increased mobility and efficient hunting methods have permitted the annual harvest of caribou to remain generally constant. Although winter trapping activity has declined, spring muskrat trapping has not and in recent years the number of hunters and families going to the Old Crow Flats has increased. Many who go to the Flats today do so as a form of 'paid holiday' from wage-earning employment in the village; similarly, caribou hunting has become a specialized activity carried out during a relatively short period of time.

Usher (1970:83) pointed out that in contrast to the older and larger fur-trade centres in the northern forest and tundra regions (such as Old Crow, discussed above), the total trapping area utilized by the Inuit on Banks Island has continued to increase.⁽¹⁷⁾

(17) This case may be unique north of 60 and the situation described by Stager respecting the Old Crow Indians is more indicative of the overall trend.

CHAPTER THREE. LAND USE AND THE LAW

The acumen and way of life of the native hunter were essential ingredients in the success of the fur trade. Thus it behooved the fur-trader to minimize the disruptive force of his presence on the man-land relationship which had evolved in the north over thousands of years.

It was virtually not until the discovery of gold in 1896 that land use activities of an exogenous nature were introduced to the north. Put another way, the north which has a history of human occupation of at least 25,000 years has experienced in just 75 years a range of land use activities which include: mining, oil and gas production, railroads, highways, pipelines, agriculture and forestry.

This chapter considers northern land legislation as it evolved during the hundred year period following Canada's acquisition of Rupert's Land and the North Western Territory. It was the era of the Dominion Lands Act. Designed primarily to encourage the settlement of the Canadian west it also provided, for more than 75 years, the legal authority for the disposition of northern land and associated resources.

The various amendments to the Dominion Lands Act and the Territorial Lands Act which replaced it, were essentially responses to new requirements for the conveyance of rights, with little consideration, if any, for the land itself. Thus it was within that legislative context that the northern development thrust of the 1960s took place.

Rupert's Land and the North Western Territory

Not only was the fur trade the catalyst in expanding the northern native's concept of land but, through the Hudson's Bay Company, it was also the lynchpin which controlled substantial rights⁽¹⁾ in the vast regions of Rupert's Land and the North Western Territory stretching from the Atlantic Ocean to the Alaska border.

The first official recognition that the Company's role as administrator of these northern lands was under scrutiny was the appointment by the British House of Commons on February 5, 1857 of a Select Committee "to consider the state of those British Possessions of North America, which are under the administration of the Hudson's Bay Company or over which they possessed a licence to trade" (Oliver 1915:23).⁽²⁾

It was evident that the civil powers of the fur company were outdated and that the Company's privileges under the charter would have to be changed. The draftsmen of the British North America Act, 1867,⁽³⁾ provided for just such changes. Section 146 of that Act made it lawful

(1) Including trading, land, mineral and fishing rights.

(2) The Company continued to administer land even in the relatively settled regions, such as the Red River Settlement, into the mid-19th century. The point may be illustrated by the 'One Pepper Corn' Deed between the Governor and Company of Adventurers of England and a Red River settler, Edward Mowat, dated February 28, 1855. Mowat was granted approximately 143 acres for the sum of 47 Pounds 10 Shillings and an annual rent of one Pepper Corn for the term of the agreement, namely 1000 years. The covenants included that Mowat would settle on the land and within five years bring a portion of it under cultivation and would continue to cultivate for the term. In addition Mowat was not to "violate or evade any of the chartered or licenced privileges of the Company" (Oliver 1915:1301).

(3) 30 & 31 Vict., C.3 (Imp.).

for Her Majesty on address from the Houses of the Parliament of Canada, to admit Rupert's Land and the North-Western Territory, or either of them, into the Union. In 1864 the British Government and the Hudson's Bay Company began negotiating the surrender of certain of the Company's rights, and by 1869 had reached agreement.

Under the British North America Act, enabling legislation was passed July 31, 1868, cited by the short title "Rupert's Land Act, 1868".⁽⁴⁾ This Act granted Her Majesty the power to accept a surrender of "all rights of government and proprietary rights, and all other privileges, franchises, powers and authorities", belonging to the Hudson's Bay Company but reserved to the Company the right to carry on trade and commerce in Rupert's Land or elsewhere (s. 4).⁽⁵⁾ Under Section 5 of the Act, Her Majesty was granted authority to declare Rupert's Land a part of the Dominion of Canada by Order-in-Council. The Parliament of Canada was authorized to "make, ordain, and establish within the land and territory so admitted all such laws, institutions and ordinances and to constitute such courts and officers as might be necessary for the peace, order and good government of Her Majesty's subjects and others therein".

(4) 31 & 32 Vict., C.105, S.2 (Imp.) of the Rupert's Land Act, 1868, stated that "for purposes of this Act the Term 'Rupert's Land' shall include the whole of the Lands and Territories held or claimed to be held by the said Governor and Company". That is, in addition to the lands granted under the Charter of 1670, it included the Northwest Territory acquired in 1821.

(5) The deed of surrender stated, in part, that the Company should retain those trading posts which it actually occupied in the North-Western Territory. These totalled 120 in the year 1870; the following were situated north of 60° north latitude in what is now the Yukon Territory and the Northwest Territories: Fort Simpson, Fort Liard, Hay River, Fort Resolution, Fort Norman, Fort Good Hope, Peel's River, Lapierre's House, Fort Rae, Fort Providence.

The Imperial Order-in-Council (R.S.C. 1952, VI, 6237) pursuant to the Rupert's Land Act, 1868, admitted the North Western Territory and Rupert's Land into the Dominion on July 15, 1870 and gave the Parliament of Canada full power and authority to legislate for their future welfare and good government.

The Act for the temporary Government of Rupert's Land and the North-Western Territory when united with Canada, S.C.32 & 33 Vict., c.3, assented to June 22, 1869, provided for the renaming of Rupert's Land and the North-Western Territory as the "North West Territories" when admitted to the Dominion of Canada (s.1), and for the appointment of a Lieutenant-Governor responsible for the administration of the Territories (s.2).

With passage of the Temporary Government Act, 1869, the way was clear for the formation of the Province of Manitoba out of the North West Territories. The Manitoba Act, 1870⁽⁶⁾ established and provided for the Government of the Province of Manitoba. It also provided the first authority for administering the newly acquired Crown Lands of the Dominion, under Section 33, which said "the Governor in Council shall from time to time settle and appoint the mode and form of Grants of Land from the Crown, and any Order-in-Council for that purpose when published in the Canada Gazette shall have the same force and effect as if it were a portion of this Act". By Order-in-Council dated March 1, 1871 the control and management of all Crown Lands in Manitoba and in the remaining part of the North-West Territories were placed under the Canadian Secretary of State.

(6) S.C.33 Vict., c.3.

The acquisition of the North-West Territories and the subsequent establishment of the Province of Manitoba marked a fundamental change in the nature of Confederation. The original Dominion as established under the British North America Act, 1867, was a federation of provinces and, by virtue of Section 109, each was vested with control over its own lands. However, for the new Province of Manitoba and all of the North-West Territories unalienated lands were, by statute, to be administered by the Government of Canada.

With respect to Manitoba this continued to be the situation until the passage of the Manitoba Natural Resources Act⁽⁷⁾ in 1930 which stipulated that pursuant to s.109 of the British North America Act, 1867, interest of the Crown in all Crown lands, mines, minerals (precious and base) and royalties derived therefrom, within the Province shall belong to the Province.

The Dominion Lands Act

However, public lands in the North-West Territories, which today comprise the Yukon Territory and Northwest Territories, are still under the control and management of the Government of Canada by virtue of the Territorial Lands Act, 1950, as Amended. For more than three-quarters of a century prior to the enactment of the Territorial Lands Act, the Dominion

(7) Or 'An Act respecting the transfer of the Natural Resources of Manitoba' S.C.20-21 George V, c.29. Similar acts were passed in 1930 with respect to the Province of Saskatchewan, S.C.20-21 George V, c.41 and the Province of Alberta, S.C.20-21 George V, c.3.

Lands Act, 1872⁽⁸⁾ was the statutory vehicle by which federal lands were administered.

The original Dominion Lands Act and subsequent amendments provided the Governor in Council with authority to withdraw certain areas from disposal under homestead or purchase and established reservations for National Parks, Timber Reserves, Indian Reserves, Hay and Grazing Areas, Coal and Mineral Lands, Town Plots, Military and other Federal Reserves. Because of these reservations it was necessary to insert provisions in letters patent in order to establish continuing rights of the Crown. For example the free use of all navigable waters was reserved in all patents. The rights of fishery and fishing were excepted and grants were made subject to the provisions of the Irrigation Act.

The Dominion Lands Act of 1872 provided the Minister⁽⁹⁾ with authority to sell mineral lands ("any person may explore and purchase mining lands", s.37). Although the Minister was able to withdraw valuable lands from sale, and lease them instead, Section 36 of the Act stated that sub-surface rights were not to be reserved in patents of lands. These rather generous conditions were expanded upon in 1879 when the Act was amended (S.C.43 Vict., c.26, s.6) so that lands containing coal or other minerals, whether in surveyed or unsurveyed territory, were not subject to the provisions of the Act respecting sale or homesteading but would be

(8) S.C.35 Vict., c.23.

(9) An Act providing for the establishment of "The Department of the Interior" (S.C.36 Vict., c.4), assented to May 3, 1873, made the Minister of the Department of the Interior responsible for the Dominion Lands Act (s.5) and the control and management of the affairs of the North-West Territories.

disposed of under regulations made by Governor in Council.⁽¹⁰⁾

Mining regulations to govern the disposal of quartz and placer mineral lands and excluding coal lands were passed by Order-in-Council, March 7, 1884.⁽¹¹⁾ The regulations, which applied to all Dominion Lands (Manitoba and the North-West Territories) containing gold, silver, lead, copper, petroleum and other mineral deposits except coal, provided that any person "may explore vacant Crown land not appropriated or reserved by Government for other purposes with a view to obtaining a mining claim". Included in the Regulations were conditions respecting right to enter upon, use and occupy the surface of a claim, work commitments, lease and purchase. For example, Sections 5 and 6 provided that within one year of recording a quartz mining claim (not more than 40 acres) and having completed \$500 work, the claim could be purchased for \$5.00 per acre.

Dominion Lands policy between 1870 and 1930 was not geared to the management of non-agricultural or 'marginal' lands. During this period the settlement of Western Canada and its integration into Canadian Nationality was the ultimate goal of federal land policy.

With fertile agricultural land as the medium by which this goal was to be attained land legislation was enacted which specifically served to encourage settlement. The primary function of the Dominion Lands Act was to provide a legal and administrative mechanism for settling and

(10) Regulations for the Disposal of Coal Lands were enacted by Order-in-Council dated December 17, 1881 (see S.C.45 Vict., p.LV, 1882).

(11) See S.C.47 Vict., c.47, pp. 71-92, 1884.

developing the West's agricultural land. The fact that it applied to the Province of Manitoba and all of the North-West Territories (s.1) had little relevance to the substance of the Act.

The spirit of the Act was embodied in those sections which provided free homestead grants to entice settlers into the west and the granting of vast tracts of land to railway companies as an incentive to construct a transportation network which would sustain the settlers.

Where the Dominion Lands Act did refer to non-agricultural lands it was often to provide additional incentive and support to the settler. For example, Section 46 stated that timber in townships open for settlement was to be disposed of in order to benefit the largest number of settlers. Similarly, the Order-in-Council of November 11, 1895 provided for the mining of coal if to be used for the settlers' own purposes (see S.C.59 Vict., p.LII). Other values inherent in the land-base, such as minerals, petroleum and natural gas received even less recognition. It was not until seventeen years after the passing of the Dominion Lands Act that mining rights in all Dominion Lands were reserved in land patents.⁽¹²⁾ The first regulations pertaining to petroleum and natural gas were enacted by Order-in-Council of August 6, 1898 and stated in part that an area not greater than 640 acres might be reserved for six months for any prospector who might then purchase the land at \$1 an acre subject to royalties of 2½ per cent (Ibid:194).

Dominion Lands legislation of the 1800s was not drafted with the Canadian north in mind, however the Dominion Lands Act was the legislative

(12) Solid, liquid and gaseous minerals were reserved in Grants covering Dominion Lands west of the 3rd Meridian from October 31, 1887 and east of the 3rd Meridian from September 17, 1889.

base for northern land-use at the turn of the century. Following the passage of the Yukon Territory Act, June 13, 1898⁽¹³⁾ an Order-in-Council of July 7, 1898 provided for the disposition of lands in the Yukon Territory under regulations which applied to that territory only.

Until the Yukon gold rush in 1896-97, northern Canada was still considered the domain of hunters, trappers and missionaries. It is perhaps indicative of this that the first piece of natural resource legislation, dealing specifically with the unsettled parts of the North-West Territories, was a game preservation Act, passed by the Canadian Government in 1894.⁽¹⁴⁾ This Act, which applied to those portions of the North-West Territories which were not included in the provisional districts of Assiniboia, Alberta and Saskatchewan,⁽¹⁵⁾ placed a restriction on the hunting of various species of game and was aimed mainly against transients and newcomers. Ogilvie (1889:45) had reported five years earlier "that game is not now as abundant (in the Yukon) as before mining began and it is difficult in fact impossible, to get any close to the river."

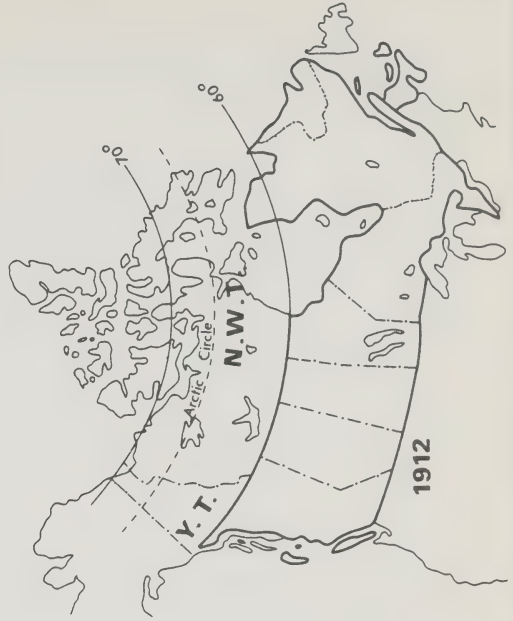
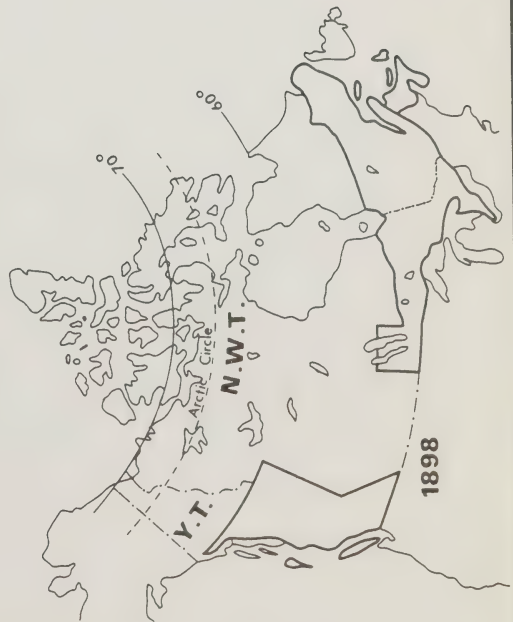
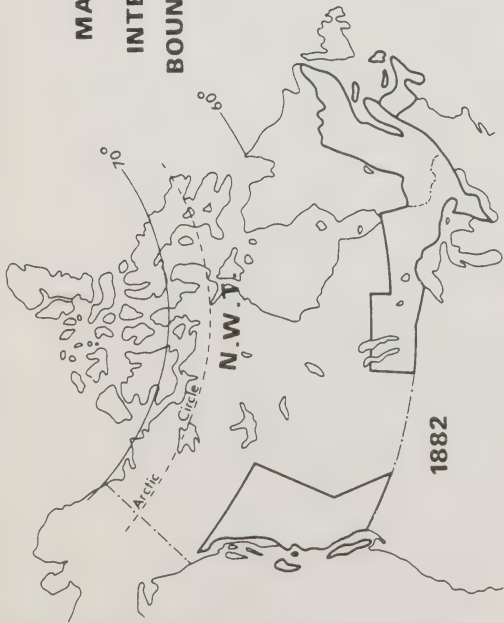
Northern land use patterns changed little during the first two decades following the acquisition by Canada in 1870 of Rupert's Land and

(13) S.C.61 Vict., c.61

(14) "An Act for the preservation of game in the unorganized portions of the North-West Territories of Canada" (S.C.57-58 Vict., c.35), assented to July 23, 1894.

(15) In 1875 the Canadian Parliament passed the North West Territories Act (S.C.38 Vict., c.49) which has been described by one historian as "The Magna Charta of separate political existence for the North West Territories" (Oliver 1915:26). The District of Keewatin was created in 1876, those of Assiniboia, Saskatchewan, Alberta and Athabaska in 1882 (see Map no. 10) and those of Ungava, Franklin, Mackenzie and Yukon in 1895. The Yukon was made a separate Territory in 1898, "An Act to provide for the Government of the Yukon District" or the "Yukon Territory Act" (S.C.61 Vict., c.6).

MAP 10
INTERNAL
BOUNDARIES



the North Western Territory. Despite the loss of her monopoly position the Hudson's Bay Company's first permanent competition in the present Northwest Territories appears to have occurred as late as 1887, with the establishment of posts at Old Fort Rae, Fort Providence and Fort Good Hope (Usher 1970:26).

The Yukon Territory Before 1900

Due in part to the presence of the Alaska Commercial Company on the Yukon River following the departure of the Hudson's Bay Company from Fort Yukon in 1869,⁽¹⁶⁾ private traders moved into the Yukon Territory more quickly. In 1874, N.L. McQuesten and Arthur Harper founded the trading post of Fort Reliance on the Yukon River about six miles below the present site of Dawson. McQuesten and A.H. Mayo then built posts at the mouth of the Stewart River and Fortymile River and Harper and Joseph Ladue established other posts at the site of Fort Selkirk⁽¹⁷⁾ (built by Robert

(16) The Company's interest in Fort Yukon was sold following the purchase of Alaska by the United States in 1867.

(17) Harper had occupied the Fort Selkirk site since 1891 according to a declaration which he made before Wm. Ogilvie, Dominion Land Surveyor, at Fortymile, July 1, 1896. In addition to Harper's own dwelling, trading post and garden, the grounds, in 1896, contained several cabins occupied by prospectors and Indians. Harper probably envisaged a major migration of prospectors and miners into the Yukon and applied June 30, 1896, to the Minister of the Interior for 640 acres, under the Dominion Lands Act (it was less than two months after he filed his application, August 17, 1896, that gold was discovered on Bonanza Creek, and the Klondike gold rush began). Town-lots were subsequently surveyed and sold in Fort Selkirk (it is now abandoned) although Harper's application was not processed due to his death (Public Archives of Canada, RG 91, Yukon Territory Records, Vol. No. 7, file no. 956).

Campbell for the Hudson's Bay Company and subsequently sacked by Chilkat Indian Middlemen in 1852) and on the Sixtymile River.⁽¹⁸⁾

The influx of miners into the Yukon in the 1880s (Morrison 1968, estimated that there were nearly 1000 men in the Fortymile Creek area in 1885) had the effect of transforming the fur trader into a general merchant and entrepreneur. As such he was interested in acquiring land in order to provide goods and services to a rapidly growing transient population.

The first applications to purchase land in Canada north of 60° north latitude were filed in the summer of 1894. Thomas W. O'Brien, a "merchant and miner", applied August 14, 1894, to purchase 320 acres at the confluence of the Fortymile and Yukon Rivers. Letters Patent 83005, dated April 18, 1900 were subsequently issued to O'Brien for a tract of 160 acres (Lot 21, Group 1). O'Brien subdivided his purchase and sold lots to "squatters and newcomers".

The second application was that of John J. Healy, dated Fort Cudahay, Yukon District, N.W.T., September 3, 1894. Healy, a "general merchandiser", requested, under Section 29 of the Dominion Lands Act, 160 acres also at the junction of the Fortymile and Yukon Rivers. In his letter of application he noted that he had deposited with the Dominion Government Agent the sum of one hundred and sixty dollars, made up of \$155 in gold⁽¹⁹⁾ and \$5 in silver coins. Letters Patent 178505 were issued to

(18) The names Fortymile and Sixtymile refer to the distance in miles down the Yukon River from Fort Reliance.

(19) Coarse gold was first found on Fortymile River in the season of 1886 (Ogilvie 1889:13).

Healy on behalf North American Trading and Transportation Company for 65.28 acres (Lot 1, Group 1). The balance of the 160 acres applied for, covered the townsite of Fort Cudahay and was not available to Healy (PAC. RG91, TGR. Vol. 7, file no. 956).

By the 1890s the needs of the miners, merchants and trading companies, the church through its missionaries, and the government represented by the North West Mounted Police, added another dimension to northern land-use and, ironically, considering the vast region and the small population, created conflicts.

The flow of gold seekers was soon to have its effect upon the Indians of the Klondike who still congregated in small groups at traditional hunting and fishing locations. Bishop Bompas, in applying to the Minister of the Interior in October 1896⁽²⁰⁾ for 40 acres of land "for mission purposes and Indian occupation", described the following situation. Twenty or more Indian families had always had a fishing camp at the mouth of the Klondak (sic) River. The miners coming into the area pressed the Indians to sell them their cabins which were situated there. About 15 of the cabins were sold with the result that a second town (the first being Dawson City on the north side of the Klondike River) emerged in the midst of the fishing camp.

(20) Letter from Bishop W.C. Bompas, Oct. 28, 1896, Buxton Mission, Upper Yukon River, to the Minister of the Interior (PAC. RG91, YTR, Vol. 19, file no. 4682).

Inspector C. Constantine, N.W.M. Police and Acting Government Agent, reported in a letter to the Secretary of the Interior dated June 15, 1897,

"...that arrangements have been made with the Indians at Klondak (sic) with the knowledge and approval of their missionaries whereby they relinquish any claim so far as the Department is concerned to the site of the old Indian Village at Klondak and are now located on a point about three miles below the site of Dawson on the east bank of the Yukon River".

By 1899 the junction of the Klondike and Yukon Rivers had become the site of a city with a population between 15,000 and 20,000 where four years earlier it had been an Indian fishing camp of 20 families.

In 1898, 7080 boats went down the Yukon River carrying approximately 28,000 people (Report of NWM Police, 1898:Part III:83). The result of this was that the traditional grounds of several Indian bands in the Yukon River valley were encroached upon. In a letter to the Deputy Minister of the Department of the Interior, dated May 1, 1900, Wm. Ogilvie, then Commissioner of the Yukon Territory, recommended the laying out of a reserve of 320 acres for the Indians camping on the shore of Lake Laberge. This recommendation was quickly acted upon and by an Order-in-Council of July 13, 1900 a tract of land containing 320 acres was laid out and set apart for the Indians in the vicinity of Lake Laberge. (21)

(21) PAC. RG91, TGR, Vol. 7, file no. 1331. A similar request from Ogilvie dated July 17, 1900 for reserves at Tagish, Teslin, Big Salmon River, Selkirk, Stewart River and Fortymile was approved and by Order-in-Council of September 1, 1900 such reserves were set apart (Ibid.).

Although by 1903 the 'mining' population of the Yukon had begun to drop, concern was still being expressed for groups of Indians whose traditional lands were in jeopardy. Z.T. Wood, Assistant Commissioner, Commanding the N.W.M. Police, Dawson, in a letter to the Commissioner of the Yukon Territory dated May 4, 1903 referred to the Indians living at the junction of the McQuesten and Stewart Rivers expressing his concern that they could be ousted by some 'townsite speculator' if a reserve was not established for them. A survey was subsequently carried out and by Order-in-Council dated June 4, 1904 an area of 320 acres was reserved for the use of the Indians.

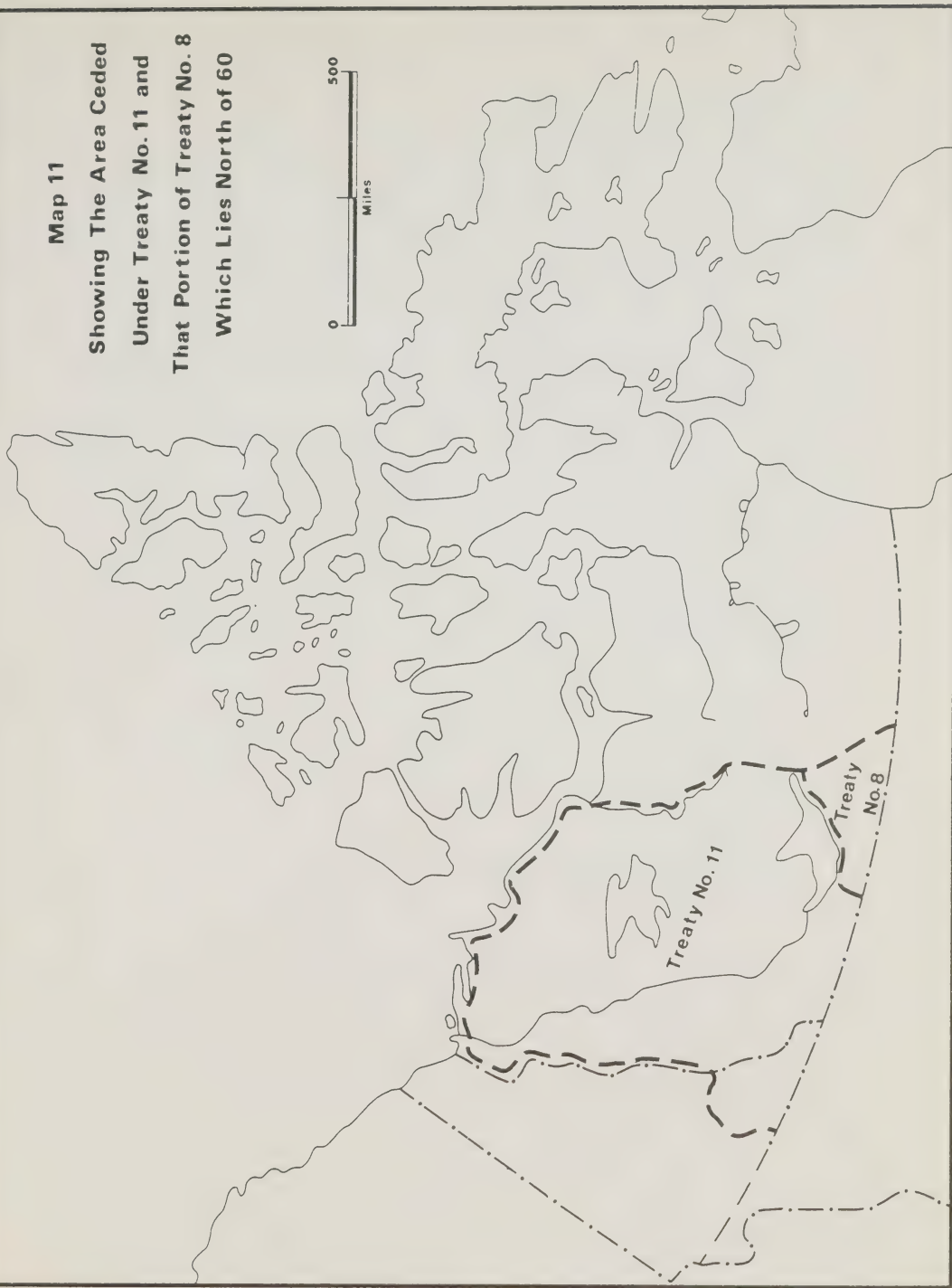
This and other similar reserves did provide some constraints on white settlement in specific and relatively small areas inhabited by Indians. However the more fundamental issues of the rights of Yukon Indians with respect to land was not reflected in any Treaty and indeed to this day the Indians of the Yukon Territory (like the Inuit of the Northwest Territories) have signed no treaties with the Canadian Government. (22)

(22) By Order-in-Council P.C. No. 2749 of June 27, 1898 a Commission was authorized to negotiate a treaty with the Indians of the Athabaska and Peace River districts and a portion of the present Mackenzie District of the Northwest Territories lying south of Great Slave Lake. Following negotiations conducted during the summer of 1899 a treaty was signed with various bands resident in the region delineated as "Treaty 8" in Map no. 11 and an area of just under 325,000 square miles was ceded to Canada. The only other treaty signed by native people north of 60 is Treaty 11 which was negotiated in 1921 and 1922 with the Indians of the Mackenzie District not included in Treaty 8 of 1899. Under Treaty 11, as shown in Map no. 11, 372,000 square miles were ceded to Canada.

Map 11

**Showing The Area Ceded
Under Treaty No. 11 and
That Portion of Treaty No. 8
Which Lies North of 60**

0 500
Miles



Mining, Oil and Gas Activities Begin

In the 1870s prospecting and mining activities were superimposed upon an already changing pattern of northern land use, precipitated and shaped by the fur trade introduced north of 60 nearly a century earlier.

Northern mining began with the production of placer gold in what is now the Yukon Territory, in the 1880s. During the following three decades the chief placer fields were to be discovered in the Klondike, Sixtymile, Stewart River, Mayo, Big Salmon and Kluane areas. Following the discovery of placer gold in the Klondike in 1896, the output of gold from the Yukon increased rapidly, reaching a maximum in 1900 of 1,120,000 ounces.⁽²³⁾ Zaslow (1971:46,111) showed that pre-Klondike gold production in the Yukon never exceeded \$300,000 annually but by the year 1900 had reached \$22,275,000.

Initially, authority for the disposal of mineral rights on Dominion Lands in the north was contained in the Dominion Lands Act, 1872.⁽²⁴⁾ In addition to various surface rights, sub-surface rights were available through purchase (s.37) and were also provided for in the issue of letters patent (s.36) under the Homestead provisions. However, an amendment to the Dominion Lands Act in 1879⁽²⁵⁾ stipulated in Section 6 that lands containing coal and other minerals, within surveyed or unsurveyed territory, were not subject to the provisions of the Act with respect to sale of homesteading, but were to be disposed of under regulations made by the Governor in Council.

(23) Camsell, 1947:29.

(24) S.C.35 Vict., c.23.

(25) S.C.43 Vict., c.26.

An Order-in-Council of March 7, 1884⁽²⁶⁾ set out Mining Regulations governing the disposal of mineral lands, other than coal lands⁽²⁷⁾ Section 2 of these Regulations stated that any person could explore vacant Crown Lands, not appropriated or reserved by the Government for other purposes, with a view to obtaining a mining claim. Sections 3 through 16 then described the procedure for staking and recording quartz mining claims as did Section 17 through 35 with respect to placer mining claims. The Regulations stipulated that a quartz mining claim could not exceed 40 acres in area and that within one year of recording this claim, provided he had done \$500 work on the claim, the holder could purchase all of the mineral rights for \$5.00 per acre.

It was this statutory and regulatory authority which prevailed at the time of the Klondike discovery and it was these Regulations to which Ogilvie⁽²⁸⁾ referred when he reported in 1889,

"When I was at Forty-Mile River the miners were very anxious to see me, and to know our mining regulations and laws. I explained everything they enquired about as fully as my knowledge and the documents at my disposal would permit. Many of them who were used to the United States system of each mining community making

(26) S.C.47 Vict., c.47, pp.71-92, 1884.

(27) Regulations providing for the disposition of coal lands had already been passed by Order-in-Council of December 17, 1881 (S.C.45 Vict., p.LV, 1882).

(28) Wm. Ogilvie, D.L.S., Canadian Department of the Interior, reporting on his survey of 'Forty-Mile River', from its mouth to the International Boundary Line. Department of the Interior, Annual Report, 1889:Sec.II-13.

its own by-laws,⁽²⁹⁾ based on the general mining law of the country, and electing their own recorder to attend to the regulations and see them carried out thought some of our regulations rather stringent and hard. I heard their statements and answered such of them as I could, and also promised to lay their views before the Department (of the Interior)..."

An Order-in-Council (P.C.2640) of October 2, 1895 was passed, which established the 'Yukon District' of the North West Territories.⁽³⁰⁾ This was followed by the passing of three sets of Regulations in 1898⁽³¹⁾ all of which pertained to mining in the Yukon District as distinct from the rest of the North West Territories.⁽³²⁾

By 1898 the federal government's policy was to encourage large-scale mining and an Order-in-Council (P.C.22) of January 12, 1898 granting a lease to conduct hydraulic mining operations formed the basis for the hydraulic Regulations passed later that year.⁽³³⁾ Such operations, to be feasible, required substantial tracts of land and large volumes of water and this in turn led to the practice of consolidating claims. In

-
- (29) Morrison (1968:4,6) estimated that 75% of those who participated in the Klondike gold rush were citizens of the United States; by 1900 this figure had dropped to 53%.
- (30) See Canada Gazette, vol.xxxi, p.350, 1897 for a schedule describing boundaries.
- (31) Placer Mining Regulations for Yukon District, Order-in-Council of Jan. 18, 1898. Dredging Regulations for Yukon District, Order-in-Council of Jan. 18, 1898. Hydraulic Mining Regulations for Yukon District, Order-in-Council of Dec. 3, 1898.
- (32) This distinction still persists in that mining, unlike all other natural resources under federal administration in the two territories, is administered under different Acts in each territory.
- (33) Morrison (1968:41).

many cases the small holdings of the independent miners were bought up by companies. Not all claims were purchased, however, and a decision by the federal government in 1901/02 conveying to a mining syndicate, headed by A.N.C. Treadgold, the right to enter and work all lapsed claims on three of the Klondike creeks met with considerable public opposition. For a full discussion of this case see Morrison (1968:43-56).

In 1906 the Yukon Placer Mining Act⁽³⁴⁾ was passed which facilitated the grouping of claims with the objective of encouraging large-scale capital investment. In the short term, at least, the Act seemed to have the desired effect; annual production did increase from 158,700 ounces of gold in 1907 to 294,500 ounces by 1913. Then production steadily declined reaching a low point of 25,000 ounces in 1926.

For purposes of the Act, placer mining was held to mean all methods of working whereby earth, soil and gravel could be removed, washed, sifted and refined for the purpose of obtaining gold or other minerals but did not include the working of rock in situ.

By 1911 most of the independent placer miners had left the Yukon⁽³⁵⁾ and gold production was derived mainly from large-scale operations. In 1912 there were 45 dredging leases in force in the Yukon Territory extending along 210.65 miles of the Yukon, Stewart, McQuesten, Fortymile, Big Salmon, Klondike, Hootalinqua and Mayo Rivers.⁽³⁶⁾

(34) S.C.6 Edward VII, c.39.

(35) Yukon population in 1911 was 8,512, down from 27,219 ten years earlier.

(36) Department of the Interior, Annual Report 1912, p.48.

However, as these operations systematically retraced the steps of the original placer miners, they too began to decline and by 1929 there were only three dredging leases in force, covering 14.34 miles of river.⁽³⁷⁾

Railroad rights-of-way were another form of land-use, introduced to the north as a result of the gold rush. Before the turn of the century two railroads had been granted charters, the White Pass and Yukon Route (initially the White Pass and Yukon Railway and the British Yukon Railway) and the Klondike Mines Railway Company.

The former proved successful, surviving the vicissitudes of Yukon development through the 20th century and is currently an integral part of the Yukon transportation system. The White Pass and Yukon Route's 110 miles of line in crossing the Coastal Mountains and stretching from Skagway, Alaska on the coast to Whitehorse, Yukon Territory, traverses Alaska, British Columbia and the Yukon for 20.4, 30.9 and 59.1 miles, respectively. Construction of the railroad began at Skagway, April 1898, reached Whitehorse June 8, 1900 and was operational by July 29, 1900, a period of just over two years (Graves, 1908).

Although the White Pass and Yukon Route was built primarily to move men and freight to and from the goldfields in concert with steamships plying between Whitehorse and Dawson, its presence provided other benefits as well. For example the Whitehorse copper belt was discovered in 1897, and its location close to the railway made its early development possible.

(37) Department of the Interior, Annual Report 1929.

Another lode deposit of silver-lead was discovered by placer miners in 1906 near Mayo, Y.T., and mining began there in 1913. The Silver King property on Galena Hill was the first mine to enter production. From 1920 to 1923, most of the silver and lead produced, came from deposits that were discovered on Keno Hill. In 1924, Treadwell-Yukon Corporation built a 150-ton concentration mill at Keno Hill and in 1935 the mill was moved to the Elsa property on Galena Hill.

Some lode gold was mined in the Klondike and Carmacks districts, the most important being the Lone Star mine between Bonanza and Eldorado Creeks. The Department of the Interior annual report for 1935 noted that gold-bearing quartz had been discovered near the Yukon River and that possibly a 50-ton mill would be constructed in 1936 to process it. Apparently this was not done.

In 1924 lode mining in the Yukon Territory was provided for under a separate Act, just as placer mining had been 18 years earlier. The Yukon Quartz Mining Act, 1924 (S.C.14-15, George V, c.74) replaced in the Yukon Territory the Quartz Mining Regulations pursuant to the Dominion Lands Act, although the latter continued in force in the Northwest Territories. The Act applied⁽³⁸⁾ to Dominion Lands in the Yukon Territory and defined 'mine' to be any land in which any vein, lode, or rock in place, shall be mined for gold or other minerals.

The Act provided any person over the age of eighteen years with the right to enter, prospect and mine any vacant Dominion Lands in the

(38) The Quartz Mining Act and Yukon Placer Mining Act are still in force.

Yukon Territory and any other lands which may be occupied but to which the rights to enter, prospect and mine were reserved to the Crown. There were certain exceptions such as land occupied by any building or under cultivation, but these too could be entered and mined with the written consent of the owner or lessee.

Although interest in the mineral potential of the north dates back to Frobisher's return to England from Baffin Island in 1576, it was not until 1933 that the first metal mine⁽³⁹⁾ in the Northwest Territories started production. In 1930, silver and pitchblende were discovered by Gilbert La Bine on the east shore of Great Bear Lake and in 1933 a mill was placed in production on the La Bine deposit by Eldorado Gold Mines Ltd. By the end of 1939 about 126,370 tons of ore had been milled and the estimated value of the concentrate produced was \$7.6 million.

Because of the importance of uranium during the latter stages of the Second World War, the company was expropriated by the federal government in January 1944 and converted to a Crown corporation.

In 1935 gold was discovered by a Geological Survey of Canada party along the west shore of Yellowknife Bay. Following three years of considerable prospecting and exploration activity, three mines, Con, Rycon and Negus were brought into production in 1938-39, followed by a fourth in 1951.⁽⁴⁰⁾ Milling, which began in July 1938 and continued until August 1943, when operations were suspended due to a shortage of

(39) Alexander Mackenzie, on his voyage to the Arctic Ocean in 1789, had noted oil seepages in the area around what is now Fort Norman.

(40) Con and Rycon, owned by Consolidated Mining and Smelting Company (now Cominco), are situated on the west side of Yellowknife Bay adjacent to the city of Yellowknife.

labour, produced gold valued at \$7.9 million. Milling operations were resumed in August, 1946.

In 1887, R.G. McConnell of the Geological Survey of Canada, noted promising indications of the presence of oil in the Devonian rocks of the Mackenzie Valley. In 1914, Dr. T.O. Bosworth on behalf of a syndicate in Calgary staked three claims on the bank of the Mackenzie River about 50 miles below Fort Norman.⁽⁴¹⁾ These claims were subsequently acquired by the Northwest Company, a subsidiary of Imperial Oil Limited (Camsell 1948:40).⁽⁴²⁾

(41) Alexander Mackenzie, on his voyage to the Arctic Ocean in 1789, had noted oil seepages in the area around what is now Fort Norman.

(42) Early provisions to stake claims and acquire petroleum rights in the Yukon and Northwest Territories were found in:

- (i) Order-in-Council of May 31, 1901 (S.C.63-64, Vict., p.lxv) "all unappropriated Dominion Lands in Manitoba, North-West Territories and Yukon Territory shall, on July 1, 1901, be open to prospecting for petroleum by any individual or company desiring to do so".
- (ii) Order-in-Council of March 23, 1904 (Can. Gazette, vol.xxxvii, p.1970) "should oil be discovered an area of not more than 640 acres, including oil well, will be sold to the company or person making the discovery at \$1.00 per acre and an additional 1280 acres of area may be sold at \$3.00 per acre". See also Regulations governing the disposal of petroleum and natural gas rights in Manitoba, Saskatchewan, Alberta, Northwest Territories and the Yukon Territory.
- (iii) Order-in-Council of August 12, 1911 (S.C.2, George V, p.clx).

PART TWO. THE PRESENT SETTING

The demands made upon territorial lands today are diverse, sometimes conflicting, and rapidly increasing.

CHAPTER FOUR. FEDERAL GOVERNMENT LEGISLATION

Seventy-eight years after its enactment the Dominion Lands Act was repealed in 1950. Manitoba, Saskatchewan and Alberta had by 1930 assumed control and management of their own natural resources, and mining in the Yukon Territory, although remaining a federal responsibility, was provided for under separate legislation.⁽¹⁾ Hence the Dominion Lands Act which had provided the legislative base for a land policy which included homesteading, the purchase of agricultural land and railway land grants, and which in turn provided the impetus for opening up the Canadian west, was by 1950 largely inappropriate for administering the residual 'Dominion Lands' to the north.

The Dominion Lands Act was replaced by the Territorial Lands Act (S.C.14 George VI, c.22) which was assented to June 1, 1950.⁽²⁾ The new Act applied to all lands in the Northwest Territories and the Yukon Territory which were vested in the Crown and under the 'control management and administration' of the Minister of Resources and Development (that is, virtually all of the land), but did not take precedence over the Yukon Quartz Mining Act or the Yukon Placer Mining Act (s.3).

The Territorial Lands Act is in essence, enabling legislation providing for the disposition of surface and sub-surface rights to land north of 60. It provides the Governor in Council with authority to sell,

(1) The Yukon Quartz Mining Act and the Yukon Placer Mining Act.

(2) Territorial Lands Act, 1950, s.26, repealed the Dominion Lands Act, the Irrigation Act and the Reclamation Act.

lease or otherwise dispose of territorial lands and to make regulations authorizing the Minister to do likewise subject to any limitations prescribed by the Governor in Council.

Under the Act the Governor in Council can also make regulations for the leasing of petroleum and mineral rights and for the issuance of permits to cut timber and can make regulations and orders with respect to enquiries, including the examination of witnesses under oath, into questions affecting territorial lands.

Finally the Governor in Council is empowered to set apart and appropriate territorial lands for various purposes including their use for certain public works, to fulfil obligations under Indian treaties, and as national forests, public parks, game preserves or other similar public purposes.

Territorial Land Use Regulations

The current version of the Territorial Lands Act (RSC 1970, c.48) contains only one major revision to the original Act. In 1970 the Act was amended authorizing the Governor in Council, "where he deems it necessary for the protection of the ecological balance or physical characteristics of any area...to set apart and appropriate any territorial lands as a land management zone". The amendment also authorized the Governor in Council to make regulations respecting the protection, control and use of territorial lands and the issuing of permits for the use of the surface of the land within a land management zone. In addition the

Land Use Regulations ⁽³⁾ describe the terms and conditions which may be included in a land use permit required for any operation carried out within a land management zone. ⁽⁴⁾

The 1970 amendment to the Territorial Lands Act and the 1971 Land Use Regulations, represent a major departure from previous Canadian Government land legislation, dating back to the enactment of the Dominion Lands Act in 1872. Previous legislation was designed to transfer surface and subsurface rights and to provide a legal basis for setting aside specific areas for particular use such as public parks. By providing for regulations designed to minimize the detrimental effects of land use operations on the land the 1970 amendment changed the spirit of the Act from that of a vehicle for allocating rights to one which also protected the land surface.

-
- (3) Territorial Land Use Regulations, SOR/71-580. Other Regulations under the Territorial Lands Act (RSC 1970, c.48) include:
- (i) Territorial Land Regulations, SOR/61-1.
 - (ii) Canada Mining Regulations, SOR/61-86. Amended by SOR/62-249, 63-462, 66-80, 66-179, 68-120, 68-388, 69-61, 73-277, 73-622.
 - (iii) Canada Oil and Gas Land Regulations, SOR/61-253. Amended by SOR/63-91, 64-341, 66-486, 66-569, 67-342, 67-379, 67-614, 68-368, 69-29, 69-415, 71-662, 73-13.
 - (iv) Territorial Timber Regulations, SOR/62-276.
 - (v) Territorial Coal Regulations, 1955 Consolidation. Amended by SOR/65-368, 65-471, 67-586.
 - (vi) Territorial Quarrying Regulations, SOR/57-114. Amended by SOR/61-337.
 - (vii) Territorial Dredging Regulations, 1955 Consolidation. Amended by SOR/55-262.
- (4) See Naysmith (1973:11,12) for discussion of Land Use Regulations.

The application of the Land Use Regulations is limited in two major respects. They do not apply to mining activity in the Yukon Territory since the Territorial Lands Act does not limit the operation of the Yukon Placer Mining Act nor the Yukon Quartz Mining Act⁽⁵⁾ and they do not apply to any lands the surface rights to which have been disposed of by the minister.⁽⁶⁾ The latter includes territorial lands which have been leased or sold and also those lands in either of the two territories which have been transferred by Order-in-Council to either Commissioner.

Mining Acts and Regulations

Mining and mineral leasing in the Northwest Territories is provided for under the Canada Mining Regulations pursuant to the Territorial Lands Act whereas in the Yukon Territory mining activities are governed by the Yukon Placer Mining Act and the Yukon Quartz Mining Act. In both territories "minerals" by definition includes all rock in situ but exclude coal, gravel, soil or hydrocarbons. In the Northwest Territories placer mining is also dealt with under the Canada Mining Regulations.

In both territories anyone eighteen years of age or over may prospect and mine⁽⁷⁾ upon territorial lands subject to certain limitations.⁽⁸⁾

(5) Territorial Lands Act, RSC 1970, C.T-6, s.3(3).

(6) Territorial Land Use Regulations, SOR/71-580, s.3(6).

(7) In the Northwest Territories a prospector's licence is required, Canada Mining Regulations SOR/61-86, s.10.3.

(8) Canada Mining Regulations SOR/61-86, s.10.3(a) and (b).
Yukon Quartz Mining Act RSC 1970, C.Y-4, ss.13 and 14.
Yukon Placer Mining Act RSC 1970, C.Y-3, ss.17 and 18.

Under the Yukon Quartz Mining Act a recorded holder may hold his claim⁽⁹⁾ for a period of one year and from year to year thereafter provided he does one hundred dollars worth of work on it annually, s.53.1. The claim holder is entitled to receive a "certificate of improvements" when he has complied with certain requirements, s.64, followed by receipt of a lease upon payment of a fee, s.68.

In the Northwest Territories a claim may be held for a ten-year period if one hundred dollars worth of work is done on it annually. ⁽¹⁰⁾ A lease must be applied for within thirty days after the tenth year in which the claim was recorded, s.44.1, or within thirty days of attaining production of five tons per day, s.44.3, otherwise the land will be considered open for relocation. In both territories provision is made for "grouping" of claims prior to applying for a lease. This allows the representation work done on any claim to be applied to the requirements of all claims within the group.

A permit system is provided for under the Canada Mining Regulations ss.26-30, applicable in the Northwest Territories, whereby large tracts of land are made available for prospecting purposes. This system provides exclusive rights, subject to the rights of any person holding a mineral claim in the area, to prospect and develop minerals within a permit

(9) Claim size is the same in both territories, that is 1500' x 1500' or 51.65 acres.

(10) If claim is located south of 66° latitude; north of 66° latitude \$200 per claim annually is required for first two years and \$100 annually for next eight years (SOR/69-61, s.32(1) and (2)). By Order-in-Council dated January 16, 1975 a licensee may stake an unlimited number of claims in the N.W.T. in any area defined by a mineral claim-staking sheet. Previously the limit was 36 claims per year.

area, for a period of three years. If the applicant carries out work on the claims up to an amount specified in the Regulations (SOR/61-86, s.27(1)) he may stake up to 90 claims the first year, 250 claims the second year and up to a three year total of 450 in the third year (SOR/62-249, s.27.6). The permit holder is required to release one-quarter of the total area at the end of the first year and one-half of the permit area at the end of the second year. (11)

The mining lease in both territories is valid for a period of 21 years. In the Northwest Territories leases are renewed automatically if production has been attained (SOR/62-249, s.46.2). In the Yukon, provided the leasee has complied with all of the terms, the lease is renewable for 21 years on the same terms. For additional 21-year periods or a portion thereof, the lease is renewable subject to terms and conditions described by the Governor in Council (Yukon Quartz Mining Act, s.96).

Where surface rights have been disposed of, for example, by means of a timber licence or a petroleum, grazing, or coal mining lease, the mineral lessee, before entering the land, must, in the case of the Yukon, receive the permission of the Minister (Y.Q.M.A. s.100) and in the case of the Northwest Territories, a designated departmental officer (C.M.R. SOR/61-86, s.66.1). If the surface rights have been patented and the mineral lessee is unable to reach an agreement with the owner of the surface lands, the matter may be submitted to binding arbitration.

(11) In addition to the prospector's licence and prospecting permit systems the Canada Mining Regulations (SOR/61-86, s.29) also provides for the withdrawal of areas from disposal under the Regulations by the Governor in Council and authorize him to grant to any person exclusive rights to explore and develop minerals under certain terms and conditions.

The intent of the Yukon Placer Mining Act and the Yukon Quartz Mining Act is basically the same with respect to questions of entry and renewal, however there is one distinctive difference in the two Acts. Under the Placer Mining Act (s.93) the Governor in Council may either prohibit entry or allow it under specific terms and conditions where the land is required for certain public works, national parks, historic sites or other public purposes.⁽¹²⁾ The Yukon Quartz Mining Act contains no similar provision.

Oil and Gas Regulations

On May 1, 1975, it was announced that the Canadian Government plans to place before Parliament a bill to establish a 'Petroleum and Natural Gas Act'. The Act and pursuant regulations, including the existing Canada Oil and Gas Land Regulations, would provide for oil and gas exploration and development in the two territories and include the following points:⁽¹³⁾

- a ten-year production licence would be granted upon discovery, replacing the existing 21-year lease;
- when an exploration permit holder makes an application for a production licence, the Crown would have the option of a working interest, and/or a profit share in the discovery;

(12) This provision is inherent in the legislation pertaining to the Northwest Territories where the Canada Mining Regulations are pursuant to the Territorial Lands Act.

(13) The Minister of Indian Affairs and Northern Development to the Independent Petroleum Association of Canada in Calgary, Alta.

- a provision for a reduction in the royalty rate if it was necessary to bring a marginal discovery into production; and
- oil and gas rights in Canada Lands (which includes virtually all land in the two territories) now unalienated, that is not held under permit, lease or lease application, would be declared Crown reserves. (It is possible that the new Crown corporation, Petro-Canada, could receive some initial preference with respect to Crown reserve acreage.)

At present the acquisition and utilization of territorial lands for purposes of petroleum exploration and production are provided for under the Canada Oil and Gas Land Regulations, pursuant to the Territorial Lands Act. Under these Regulations a permit to explore for oil and gas on territorial lands, not previously held under permit or lease, may be granted by the Minister (s.30.1), and in the case of lands previously held under permit or lease the Minister shall call for tenders for the purchase of a permit (s.32.1).⁽¹⁴⁾

The oil and gas exploration permit grants the permittee exclusive rights to acquire leases for half the permit area (s.56.2) and imposes a work obligation. The size of the permit varies according to the latitude but averages 45,000 acres. The term of a permit can vary from three to six years and is renewable for six one-year terms. Under s.49.1 a permittee may apply to group permit areas not exceeding two million five hundred

(14) The Oil and Gas Land Regulations also provide for the issuance of an "exploratory licence" (s.24) which pertains to no specific area; gives the licensee the right to enter on any vacant lands to search for oil and gas but provides the licensee with no option to acquire oil and gas leases.

thousand acres provided the parts are contiguous or are within a circle having a radius of one hundred miles. As with the grouping of mineral claims this allows for the expenditures made on any permit area in the group to be applied to any or all of the permit areas if the permittee wishes (s.50.1). Regrouping by the permittee is also permitted (s.51). Grouping and regrouping provides the permittee with flexibility in consolidating his work so that high logistical costs can be applied to a single comprehensive program.⁽¹⁵⁾

A permittee, upon application to the Minister, shall be granted an oil and gas lease. The land contained in the lease must be selected from within, and must not exceed one-half of, his permit area. The term of the lease is twenty-one years (see 'production licence', above), renewable upon application by the lessee, provided the area is, in the opinion of the Minister, capable of producing oil or gas and the lessee has complied with the terms and conditions of the lease and the Oil and Gas Land Regulations.

A lessee who is a holder of a licence may carry out exploratory work, drill wells, and produce any oil or gas from the land within his lease area. If during the term of the lease commercial production begins the Minister shall, at the request of the lessee, reissue the lease for a term of twenty-one years.

Where the surface rights to any part of the lands described in a permit or oil and gas lease have been disposed of in the form of a term-

(15) Under the proposed 'Petroleum and Natural Gas Act' these widespread grouping privileges would be reduced in order to promote a more rapid initial appraisal and a concentration of effort on the most prospective areas. Op. cit., Buchanan 1975:12.

inable grant (e.g., timber licence or grazing licence) or have been granted under letters patent or sold under an agreement of sale, the permittee or lessee cannot enter upon such lands without the consent of the owner of the surface rights or holder of the terminable grant and the consent of the occupier of the lands. Failing either of these the permittee or lessee must have obtained an order for entry from the arbitrator referred to in the Regulations.

Following the permittee's selection of land to be contained in his lease,⁽¹⁶⁾ the remaining 50 per cent of the permit area not selected is surrendered to the Crown as 'Crown Reserves'. Until April 15, 1970, when it was revoked, a Land Order⁽¹⁷⁾ under the Canada Oil and Gas Land Regulations provided a 60-day option in which the permittee could select additional leases from the Crown Reserve by agreeing to pay a sliding scale royalty in addition to the normal 10 per cent royalty.⁽¹⁸⁾

Section 58 of the Regulations provides for the disposal of the Crown Reserve by stating that "the Minister may grant an oil or gas lease or call tenders for the purchase of an oil and gas lease for Canada Lands

(16) S.55 of the Regulations provides that oil and gas leases will not be issued to a corporation unless it is a Canadian Corporation and the Minister is satisfied that Canadians will have the opportunity of participating in the financing and ownership of the corporation or to a person unless that person is a Canadian citizen and beneficial owner of the interest.

(17) Oil and Gas Land Order No. 1-1961 of October 12, 1961 as amended.

(18) The Land Order was revoked pending possible amendments to the Canada Oil and Gas Land Regulations, which have been discussed in reference to the Petroleum and Natural Gas Bill.

that have been held under a permit..." The Crown Reserve thus might be disposed of by public sale for cash bonus. The system whereby the prospective purchaser bids an amount equal to the exploration work he is prepared to undertake during the primary term of the permit has also been used. (19)

Quarrying, Coal and Timber Regulations

Other regulations providing for the transfer of surface and sub-surface rights in the two territories include the Territorial Quarrying Regulations, the Territorial Coal Regulations and the Territorial Timber Regulations, each of which has been passed pursuant to the Territorial Lands Act.

Under the Quarrying Regulations an area up to 160 acres may be leased for the purpose of removing stone, sand, gravel, etc. After staking out the desired area and paying a lease fee an applicant may receive a ten-year lease, renewable, for quarrying purposes. The Regulations do not permit entry onto private lands and the holder of a quarry lease or permit must obtain the permission of the Minister if the area under permit or lease is already subject to a recorded mineral claim or an oil and gas lease or permit.

The maximum area available for lease under the Territorial Coal Mining Regulations is 640 acres and the term of such a lease is 21 years, renewable. The leasee has the right to enter and use the surface of the

(19) Yates 1973:11.

land necessary to conduct his operation efficiently but he must compensate the owner of the surface rights or lawful occupant of the land for any loss or damage caused by coal mining operations on the leased area. Where coal in lesser quantities or for a shorter period is required, a permit may be applied for, which lasts until the 21st of March, next. The right of entry under a permit is the same as that for a lease but the permittee may only mine the coal up to the quantity specified in the permit.

The Territorial Timber Regulations apply to the cutting and removal of timber on territorial lands which are under the control, management and administration of the Minister of Indian Affairs and Northern Development; that is all of the land north of 60 except that contained within Commissioner's Lands (discussed below).

The Regulations authorize the Minister to issue a permit to any individual over the age of eighteen or to any corporation for the cutting and removal of timber. In addition a forest officer may issue a permit to similar parties for the production and removal of up to 2.5 million board feet per annum. The Regulations also cover the payment of timber dues, the seizure of timber unlawfully cut and reserves adjacent to public roads and lake shores.

Federal officers of the forest services also administer territorial legislation in the form of Forest Protection Ordinances through appointment by the two Commissioners. The Forest Protection Ordinances deal with such matters as the burning of slash and debris during right-of-way clearing; closed seasons, burning permits and fire-fighting assistance.

Territorial Land Regulations

The Territorial Land Act provides for the sale, lease or other disposition of territorial land north of 60 and the Territorial Land Regulations deal specifically with the administration and disposal of these lands. All dispositions are subject to certain reservations, some by virtue of the Act, for example all mineral, fishing and water rights are reserved to the Crown as is the bed below any body of water and a one hundred foot wide strip along the shoreline of any navigable water. Under the Territorial Land Regulations other reservations and conditions apply. For example, in every agreement of sale or grant, other than surveyed land in a townsite, a part of the land may be appropriated for the purpose of a public road and every lease shall contain a reservation of all mines and minerals, whether solid, liquid or gaseous, and full power to use and occupy the lands in order to extract them. Section 12 of the Land Regulations also stipulates that all leases contain a reservation: of all timber; the right to enter upon and remove any rock outcrop required for public purposes; right-of-way and of entry as may be required to construct and maintain facilities for conveying water to mining operations; and the right to enter upon the land, install and maintain a public utility.

In nearly all instances the initial occupation of land is through a lease or an agreement of sale. In the latter case title is not granted until certain improvements to the land, specified in the agreement, have been completed. Such improvements usually comprise the construction of buildings and/or facilities pertaining to a particular land-use.

An agreement of sale is usually issued for a term of five years with the purchase price of the land being paid in five equal installments. Once the conditions of the agreement have been met, the full purchase price paid, the parcel conveyed and the plan filed in the appropriate Land Titles Office, a title to the land may be issued.

Leases may be granted for any period up to thirty years. Under normal circumstances a lessee may obtain a renewal of his lease. If a renewal is not required or cannot be granted, the lessee may remove his improvements from the land and a stated period of time is allowed in which to do this.

The sale and leasing of Crown lands, other than lands suitable for grazing or muskrat farming,⁽²⁰⁾ are limited to 160 acres and 640 acres respectively to any one person unless otherwise approved by the Governor in Council.

With the enactment of the Territorial Lands Act and the revoking of the Dominion Lands Act in 1950, the legislative provision for homesteading north of 60 was removed. However if an individual wishes to farm and has sufficient capital to do so he may be provided with up to 160 acres of arable land. Initial occupation is under a lease issued for a five year term with the lessee being required to construct a house and to place a stated acreage under cultivation before the lease expires. The

(20) Not more than 6,400 acres of land may be leased, but not sold, to any one person for purposes of grazing or muskrat farming without the approval of the Governor in Council.

lease may contain an option to purchase, thus allowing the lessee, once the specified improvements have been made, to make application to have the land surveyed and subsequently purchase it.

Although the Territorial Lands Act provides for the disposition of the surface and sub-surface rights to virtually all land north of 60, except for mines and minerals in the Yukon Territory, there are several other federal statutes which may effect northern land use, such as the Northern Inland Waters Act, the National Parks Act and the Canada Wildlife Act.

CHAPTER FIVE. TERRITORIAL GOVERNMENT LEGISLATION

Commissioner's Lands

All land north of 60 is not administered by the federal government. Under Section 45 of the Northwest Territories Act and Section 46 of the Yukon Act⁽¹⁾ certain land is appropriated to the territories and is subject to the control of the Commissioner in Council.

The effect of this clause is to give the territorial governments the authority to administer the surface rights of certain lands, commonly known as "Commissioner's Lands", in and around communities, subject to certain federal reservations as cited in the Territorial Lands Act.

The Commissioner's Lands in the Yukon Territory are administered under the Yukon Lands Ordinance and in the Northwest Territories under the Commissioner's Land Ordinance. The lands to which these ordinances apply are those described in the Yukon Act and the Northwest Territories Act as "remaining vested in Her Majesty in right of Canada but the right to the beneficial use or the proceeds thereof is hereby appropriated to the territories and is subject to the control of the Commissioner in Council". In both cases it is clear that it is the surface rights only to which the Ordinances apply.⁽²⁾

Subject to the Ordinances and regulations, each Commissioner may sell, lease or otherwise dispose of land within the "Commissioner's Lands" and he may make those regulations and orders he deems necessary in order to carry out the provisions of the Ordinance.

(1) Northwest Territories Act, RSC 1970, c.N-22. Yukon Act, RSC 1970, c.Y-2.

(2) Yukon Lands Ordinance s.32. Commissioner's Land Ordinance, s.3.d.

In each territory the Commissioner is empowered to withdraw any tracts of Commissioner's Lands from disposal under the respective Ordinance where it is considered advisable in the public interest to do so and to set apart and appropriate such tracts for public or other purpose. (3)

Title to Commissioner's Lands in the Yukon may be "transferred forthwith" or by entering into an agreement for sale subject to the terms and conditions contained in the tender call. The Regulations governing the administration and disposal of Yukon Lands (Commissioner's Lands) also authorize leasing for residential, recreational, agricultural and grazing purposes.

In the Northwest Territories the Director of Local Government administers the Land Regulations under the Commissioner's Land Ordinance and is authorized by the Commissioner to execute leases and agreements of sale. He is also authorized to issue permits for the cutting and removal of hay and timber and for quarrying. Timber permits on Commissioner's Lands in the Yukon are issued by the federal Yukon Lands and Forests Service and the responsibility for administering quarries within community boundaries has been turned over to the local councils in each case.

Area Development Ordinance

In addition to the Lands Ordinance in each territory which provides for the disposition of land under the administration of the Commissioners, each territory also has an Area Development Ordinance. This latter

(3) The Yukon Lands Ordinance states in s.8.2 that the Commissioner "may designate the most desirable use of any Yukon lands and withdraw such lands from disposition under this Ordinance for any purpose other than the use so designated".

Ordinance is a form of land use control legislation and functions as a control mechanism on land use operations at the territorial government level much like the Land Use Regulations under the Territorial Lands Act do on 'federal' lands north of 60.

The Area Development Ordinances⁽⁴⁾ go beyond the federal Land Use Regulations in that the former authorize the Commissioner to make regulations for the orderly development of an area, respecting the zoning of the area, including the allocation of land for agricultural, residential, business, industrial, educational, public or other purposes. That is, while the Land Use Regulations under federal statute attempt to minimize alteration of the land surface by controlling the manner in which land-use operations are conducted, the Area Development Ordinance can control and specify the type and nature of certain activities in a particular zone.

It is apparent if one considers the balance of the Commissioner's powers under the Area Development Ordinance that the intention of the legislation is to control development in and around communities. There has been one major exception to this approach, however. On January 11, 1973, the Commissioner of the Northwest Territories established the Mackenzie Development Area, by Commissioner's Order No. 2-73, pursuant to the Area Development Ordinance. The Mackenzie Development Area includes

(4) The Area Development Ordinance in each territory applies to all land and not only those lands known as "Commissioner's Lands". The authority for the Area Development Ordinance stems from the Yukon Act (RSC 1970, c.Y-2, s.16) and the Northwest Territories Act (RSC 1970, c.N-22, s.13).

all of that portion of the Mackenzie District of the Northwest Territories which lies within four miles of each side of the Mackenzie Highway, or its proposed route, from the junction of that highway and the Hay River road northward to and including the community of Tuktoyaktuk.

In addition to establishing the Mackenzie Development Area the Order provides for Mackenzie Development Regulations. These Regulations apply to the whole of the Mackenzie Development Area and, in part, state that no person may, without the written consent of an Area Development Officer: cut and remove timber; erect or maintain a building; make excavations or establish camps. Considering the fact that the area involved comprises more than 8000 square miles it is not difficult to imagine the Area Development Ordinance, in this instance, functioning as regional planning legislation.

The Territorial Park Ordinance - NWT

Another territorial ordinance with a definite land use connotation is the Territorial Parks Ordinance of the Northwest Territories. The Ordinance refers to four types of Territorial Parks, viz: Natural Environment Recreation Parks, to preserve the natural environment for the benefit, education and enjoyment of the public; Outdoor Recreation Parks to provide opportunities for public outdoor recreational activities; Community Parks to provide outdoor recreational activities for the benefit of particular communities; and Wayside Parks to provide for the enjoyment, convenience and comfort of the travelling public.

Land required for park purposes determined by the Territorial Parks Committee set up under s.5.1 of the Ordinance may be made available under the Territorial Lands Act. Section 6.1 of the Territorial Parks Ordinance provides that "where land has been set aside under an Act of the Parliament of Canada for park purposes, the Commissioner in Council may establish a Natural Environment Recreation Park or an Outdoor Recreation Park".⁽⁵⁾ It is important to note here that land is only "set aside" for park purposes, but the right to dispose of any surface rights to use or occupy the surface of the land or to establish, engage in, or conduct any business, commercial enterprise or industry remains with the federal government,⁽⁶⁾ since the land is still subject to any Act of the Parliament of Canada (s.13).

The Territorial Park Committee, in examining proposals for the establishment of Territorial Parks and advising the Commissioner and the Territorial Council on matters related to the establishment and operation of such parks, must consult with representatives of those people residing in or near the location of a proposed park and may hold public hearings on park proposals.

The Commissioner of the Northwest Territories may appoint a Superintendent of Parks, responsible for the administration and enforcement of the Ordinance and regulations in a Territorial Park. The Ordinance

(5) Community Parks and Wayside Parks, the remaining two park categories provided for in the Ordinance may be established by Commissioner's Order (s.6.2).

(6) Unlike the Yukon Lands Ordinance or the Northwest Territories Commissioner's Land Ordinance which transfers the administration of public lands to the territories and authorizes the Commissioner to dispose of surface rights and to withdraw tracts from disposal.

provides the Superintendent with authority to issue permits upon such terms and conditions as he may prescribe, authorizing a person to carry out certain activities within a Territorial Park, including: the occupying or using the surface of any land within a Territorial Park; and establishing or engaging in business or industrial activity within a Territorial Park. Although those land use activities provided for under various federal Acts cannot be precluded from Territorial Parks,⁽⁷⁾ the Commissioner may make regulations concerning such things as: controlling the use and development of resources in a Territorial Park and the standards to be observed in the conduct of any business in a park.

(7) Territorial Park Ordinance, s.13.

CHAPTER SIX. LAND ADMINISTRATION IN THE NORTH

Territorial Governments

Within each territorial government there is a Department of Local Government which is responsible for administering the 'Commissioner's Land' or Block Land Transfer areas. For example, in the Northwest Territories the Director of the Department of Local Government appoints land agents under Section 4 of the Commissioner's Land Regulations. Regional superintendents of local government, area service officers and area clerks normally hold continuing appointments as land agents. The land agents' duties include: receiving and processing applications for land, quarrying permits and timber permits within Block Land Transfer areas; furnishing lands information and assistance to the public; land inspections; and receiving and processing territorial government revenues. When applications are received for land in and around communities for which Block Land Transfer areas have not yet been established, the territorial government land agent receiving the application forwards it, along with his recommendations, to the federal lands officer in Yellowknife.

Within municipalities,⁽¹⁾ land administration including planning, zoning and the sub-division of municipal land is provided for in the Northwest Territories under the Planning Ordinance (June 1974) and in the

(1) The Department of Local Government in each territory also administers the Municipal Ordinance. The Yukon Territorial Government has also established 'Local Improvement Districts', which in effect have replaced the village and municipal district and provide a training ground for municipal government (pers. comm. W. Bilawich, Yukon Territorial Government, Whitehorse, Y.T.). Each L.I.D., of which there are now six, is administered by a Board of Trustees, who, following their initial appointment by the Commissioner, are elected by the residents of the District. The Board of Trustees manages the budget of the Local Improvement District and acts in an advisory capacity to the Commissioner and the Department of Local Government

Yukon Territory under the Municipal Ordinance (March 1972). A municipality's secretary-treasurer or secretary-manager may, subject to approval of the local council, be appointed land agent, and an annual agency grant is paid to the municipality by the territorial government, to finance the operation.

Federal Government

The unalienated Crown land beyond Block Land Transfer areas (which is nearly all of the land north of 60) is the responsibility of the Minister of Indian Affairs and Northern Development. The northern program of the department has in each territory a 'water, forest and land' organization reporting to a regional director of resources and responsible for administering federal land policy.

Applications to acquire federal land are accepted by appointed land agents in the renewable resource program or officers of the territorial government (as discussed above). Normally land agents carry out a field investigation with respect to the application and then forward their recommendation together with the application to the appropriate supervisor of lands in Whitehorse or Yellowknife.

The operational organizations responsible for administering the various regulations and for carrying out on-site inspections are the Yukon Lands and Forest Service and the Northwest Lands and Forest Service with headquarters in Whitehorse, Y.T. and Fort Smith, N.W.T., respectively. Each Lands and Forest Service is under the direction of a regional superintendent and comprises a series of districts and resource management areas.

Each area is managed by a resource management officer whose responsibilities include: land administration; land-use enforcement; timber management and forest fire control.

Federal-Territorial Liaison

(a) Federal-Territorial Lands Advisory Committee

Because of the need for close cooperation between the federal and territorial land programs a committee known as the Federal-Territorial Lands Advisory Committee has been established in each territory. Chaired by an officer of the Department of Indian and Northern Affairs ⁽²⁾ each committee, which includes representatives of the federal and territorial governments, has the following terms of reference:

- (1) To coordinate mutual action and the exchange of information between the federal and territorial governments with respect to the administration of federal lands, including the review of applications;
- (2) To review policy and regulatory proposals initiated by the territorial government that will have an effect on the administration and use of federal lands, and to review policy and regulatory proposals initiated by the federal government that will have an effect on the administration and use of territorially controlled lands;
- (3) To provide a forum for coordination at the regional level of the interests and concerns of the native people with respect to the administration of federal lands;

(2) Assistant Regional Director, Renewable Resources

- (4) To provide a forum for the exchange of ideas related to improving the quality of land administration services provided to the general public by the adoption of complementary land administration methods, procedures, legislation and regulations by both governments and to make recommendations accordingly; and
- (5) To identify and recommend areas for special management programs, located outside of Development Control Zones (Block Land Transfer areas), so as to ensure controlled growth of highway, agricultural and waterfront developments, to provide advice on the suitability of planning reports prepared for such programs and to establish guidelines for the routine processing of applications in designated areas.

It should be noted that the committee acts only in an advisory capacity to the Department of Indian and Northern Affairs. For example it cannot turn down a land application but simply provides comment which will be considered by the Department in arriving at its final decision.

The necessity for coordinated action by the territorial and federal governments in the administration and management of northern land manifests itself in several ways. As discussed above the territorial governments are responsible for land administration within Block Land Transfer areas with the remainder of the public land in the territories being administered by the Department of Indian and Northern Affairs. Which government a prospective applicant must deal with will depend on whether the land in question lies within a Block Land Transfer area or not; a fact which usually requires going to one of the land offices to determine.

If the land applied for lies within the proposed boundaries of a Block Land Transfer area not yet formally transferred, the application is first reviewed by the territorial government and its recommendations forwarded to the federal lands office, whereupon the application is processed. In this way land disposal policy within settled areas is kept relatively uniform throughout each territory.

In addition to the above there are several other areas where federal and territorial legislative responsibilities overlap. For example an industrial operation, such as a mine, which is situated on the Arctic coast and dumps effluent into the ocean, is subject to the Canadian Government's Arctic Waters Pollution Prevention Act. Similarly, anyone using inland waters (except for domestic purposes) within a water management zone in the territories is required to have a water licence under the Northern Inland Waters Act, also a federal Act.

In either of the above cases if the operation occupied land within a Block Land Transfer area, the operator would have to obtain a land use permit, lease or agreement of sale from the territorial government under the Lands Ordinance. Thus the manner in which he used the land would be subject to terms and conditions pursuant to federal, as well as territorial, legislation. The need for consistency in such cases is obvious.

Conversely the Commissioner in each territory has the authority under the Area Development Ordinance to regulate the use of land not only within Block Land Transfer areas but also on all of the land beyond them which is under federal jurisdiction. Under this Ordinance the Commissioner may make regulations for the orderly development of an area, including the

zoning of the area and the allocation of land for agricultural, residential, business, industrial or other purposes. Thus a prospective land user could obtain a land use permit under the federal Territorial Lands Act, allowing him to conduct a particular land use operation, but be effectively prevented from doing so by regulations pursuant to the territorial governments' Area development Ordinances.

Although this Ordinance was initially established to control development in and around settlements there is nothing in the legislation limiting it in this way, for example the Mackenzie Development Area established in 1973 and referred to earlier, covers approximately 8000 square miles.

(b) Application Review Committee

In 1974 an interagency group was established in each territory⁽³⁾ to review all applications requesting land for agricultural purposes.

In the past most agricultural enterprises in the north have consisted of part-time market garden operations and hobby-farming on small acreages. Recently there has been an unprecedented interest in large-scale farming, particularly in the Northwest Territories. For example in the 16-month period from May 1973 to August 31, 1974, 19 applications were received for more than 58,000 acres of land for agricultural purposes, by the federal land office in Yellowknife, N.W.T.

(3) On January 10, 1975 the Minister of Indian and Northern Affairs temporarily suspended the disposition of territorial lands for agricultural purposes pending the development of long-term policies for agriculture in the north.

Although the Northwest Territories Government is aware of the value of a viable agricultural industry in the north it is also aware of its responsibility to provide those services which a farming community would require. The objectives of the recently formed Northwest Territories Farmers' Association give an indication of what would be expected. They include the following:

- that the N.W.T. government will undertake to construct and maintain secondary roads connecting agricultural areas with existing territorial highways; and
- that the N.W.T. government provide grants for water and sewer systems and for the installation of irrigation systems, and assistance to electrify rural areas at rates similar to those provided to prairie farmers.

The general lack of success in northern farming to date and the preliminary reports on the feasibility of northern agriculture, prepared by the Canadian Department of Agriculture, do not support the position that large-scale farming should be considered a viable use of northern land. Thus neither the territorial governments, which are responsible for developing agricultural policy,⁽⁴⁾ nor the Department of Indian and Northern Affairs as the agency responsible for administering the Territorial Lands Act, has been prepared to alienate relatively large blocks of land for agricultural purposes, without more conclusive evidence that large-scale farming north of 60 can be successful.

(4) The Yukon Act, R.S.C. 1970, c.Y-2, s.16(v).
The Northwest Territories Act, R.S.C. 1970, c.N-22, s.13(v).

The Application Review Committees⁽⁵⁾ were primarily established to review applications for agricultural land pending the completion of a comprehensive study by the Department of Agriculture on potential farm land in the north. In the review process the Application Review Committees' consideration includes the following:

- (1) the suitability of the land for the proposed agricultural operation;
- (2) the economic viability of the proposal including markets and transportation costs;
- (3) the impact of the proposal on native interests including hunting and trapping;
- (4) environmental considerations such as the possible effect of large-scale cattle grazing in valuable wildlife habitat areas; and
- (5) previous agricultural experience of the applicant and his financial resources vis-a-vis the first years of operation.

(c) Land Use Advisory Committee

There is also in each territory a Land Use Advisory Committee under the chairmanship of the assistant regional director, renewable resources. This committee reviews all land use applications and makes recommendations as to the stipulations to be attached to each land use permit.

(5) Each reports to the respective Federal-Territorial Lands Advisory Committee and consists of members representing: the Department of Agriculture, the Department of Indian and Northern Affairs; the territorial government, and the territorial farmers' association.

Often a land-use operation is proposed which may be of concern to a particular community. In such cases the application, in addition to being reviewed by the committee,⁽⁶⁾ is forwarded to the community where it may be reviewed and commented upon by one or more of the following: the community or hamlet council; the band council, or the trappers' association. These comments are then considered along with those of the advisory committee in responding to the application.

It should be noted that the community consultation process has enjoyed only partial success. Although sound in concept it has fallen short in execution on many occasions. When it does it is usually a case of the community receiving the application too late to provide comment, so that a land use permit is issued which fails to reflect the concern of the community.

Community consultation should probably be considered within the context of the larger question of public participation in land use planning, a subject which is discussed in some detail in Part Three of this study.

(6) The Land Use Advisory Committees include representatives of the federal Department of Environment, Indian and Northern Affairs and the territorial government.

PART THREE. A FUTURE COURSE

A northern lands policy should have as its dominant theme the maintenance, and where possible the enhancement, of the inherent productivity of the land.

CHAPTER SEVEN. PUBLIC LAND POLICY - A QUESTION OF VALUES

The future course of northern land policy must be viewed in the long-term. Because we tend to focus more on the present than on the future, the development of long-range policy requires a concerted effort. If land policy is to have a long-term orientation then it must reflect the natural values and physical properties of the land-base. In discussing the living resources of the north, Cowan (1972:108) referred to them as perpetual assets only if managed wisely and within their capacity for replacement.

What is the nature of the land we are dealing with? Hare and Thomas (1974:129) referred to the Arctic and Boreal climates as low energy environments where growth proceeds at a slow pace. Roughly one-half of the mainland area of the territories is tree covered but only a very small proportion contains timber comparable to that found in southern Canada. Even in the best timber producing areas, such as the Lower Liard Valley, much of the ground is permanently frozen. Northern terrain varies from the icy soils of the western Arctic, where the occurrence of massive ground ice is widespread (Mackay 1973:223), to the arid rock desert landscapes of Axel Heiberg and Ellesmere Islands in the Arctic Archipelago.

In addition to the natural characteristics and properties, society historically has held various views and attitudes concerning land. Hence a wide range of land values has developed including those of a social, economic, psychic and political nature. Thus to consider land in terms of its monetary worth or marketable price is to ignore the fact that land comprises values not all of which can be quantified and provides benefits

not all of which flow through the market system. Thus a broader concept of land is required, perhaps one which interprets value to mean relative worth, utility or importance. Considered in this light, value implies the capacity to satisfy individual wants. Public land policy must reflect the fact that land value is based partly on personal evaluation and attitude.

As one might expect there are at present several attitudes and divergent points of view concerning Canada's northern land. Perhaps the one most explicitly stated is that of the northern native people. To them, the land is and always has been theirs and any non-native using northern land is doing so without the consent of the native people.

For example Johnny Jean-Marie Beaulieu, a Treaty Indian born in 1887, who was present at the signing of Treaty 11 in 1921, testified before Justice Morrow during the Caveat hearing in Yellowknife in 1973, that: "...the Chief told the Treaty party (in 1921), this is our country, our land, and just because you give us that money, we don't want you to forbid us from killing anything, any game...The Treaty party then said: 'I am paying out this Treaty to the people and it has nothing to do with the land'." (Hearing Proceedings, Book Number 5, pp.321-323).

Many of the non-native people living in the territories are there because they feel the north offers considerable scope to live and work in a milieu where land is still available to the innovative. The elected Council in each territory sees the transfer of northern land from

federal to territorial government jurisdiction as a vital step in the evolution of local government and the north's political autonomy.⁽¹⁾

Searle (1973), an elected member of the Council of the Northwest Territories, in discussing provincial status for the north said:

"...the Federal Cabinet must reverse its position that provincial status shall not come to either Territory for the foreseeable future and must further reverse its position that the Government (of Canada) should continue to manage and develop the natural resources of the Northwest Territories and Yukon Territory."

Many southern Canadians who express an interest in northern land do so on the basis of possibly acquiring land for homesteading or recreational purposes. Although there is now a growing awareness of the north as a result of such issues as the native land settlement and the possibility of a Mackenzie Valley Pipeline, probably few southern Canadians have well-formed opinions on the subject of northern development.

Obviously there are Canadians who do. In February 1971 the Mid-Canada Conference, which was organized and directed by Richard Rohmer and ran from 1969 to 1971, delivered its findings to the Prime Minister. Principal among them were that it is urgent that long range policies and plans be created for the future orderly development of the Mid-Canada region and that a body should be constituted for that purpose forthwith (Rohmer 1973:192).

(1) The question of the respective roles of the federal and provincial governments in the field of natural resources, was addressed by four members of the faculty of law at Dalhousie University. They saw the federal government acting with undue caution, and the provinces, by virtue of provincial constitutional claims, enjoying virtually a free rein to dispose of nationally important resources. Several examples were cited where it was felt that Ottawa did not protect Canadian interests, including the Columbia River treaty and the export of Alberta's natural gas (McDougall et al:1972).

With respect to northern Canada, Rohmer saw the natural resources there, particularly the oil and gas, as being the opportunity for the Canadian Government to create policies which will attract manufacturing and secondary industry capital to Canada.⁽²⁾ By comparison, Walter Gordon, a former Liberal cabinet minister, envisaged the production of all Canadian Arctic oil and gas under the control of a crown corporation (Watkins 1973:108).

In 1971 the Canadian Arctic Resources Committee, a non-profit citizens' organization was formed, its membership drawn largely from faculties of Canadian universities.⁽³⁾ CARC, which was described by its first chairman as a 'social experiment', was established, in the words of its organizers, because:

"...we were convinced that Canada badly needed an organization which could provide a pair of eyes to look in on the North in a more perceptive way than any existing citizens' organization was capable of doing; which could act in an Honest Broker capacity to attempt to ensure that the things that needed to be done in advance of development of whatever type, got done; which could help to bring to the surface the question of what was to be done about the claims of the native people; and which could help to overcome the barrier to factual information existing between the Canadian public and the Government on matters that pertained to development, the native people and the environment."

The long-term objective of CARC as expressed in 1973:

"is to ensure that all interested parties work together to prepare a comprehensive land use plan for the development of the North that takes into account the physical, biological, social and economic aspects of northern development."

(2) Resources Incentive for Manufacturing program (Rohmer 1973:216).

(3) The Committee's organizers decided against inviting members of government departments or of the two resource industries, mining and petroleum, to be members of the Committee (Pimlott 1973:8).

It is probably fair to suggest that these four aspects of northern development describe what CARC considers the composite value of northern lands to be.

The Chairman of Canadian Arctic Gas Pipeline Limited, W.P. Wilder, recently spoke⁽⁴⁾ of the general complacency in Canada concerning her domestic energy supply vis-à-vis future demand. Referring to the prospect of a 'national energy crunch' in Canada during the next decade, he stated that although circumstances can change rapidly, perceptions often change more slowly. It is apparent that Wilder saw Canada's northern land as a source of considerable material and economic good for all Canadians. In this regard he suggested that Canada's potential energy resources, of which a substantial portion are in the Arctic, are capable of re-establishing Canada's energy self-sufficiency,⁽⁵⁾ thereby eliminating the need to rely on external sources and reducing the growing deficit in Canada's balance of international payments by eliminating the need to purchase energy.⁽⁶⁾

It is evident that in developing a northern land policy it is important to ensure that it incorporates the kind of social, economic and cultural values which have been identified.

(4) In an address to the Canadian Club in Winnipeg, April 17, 1975.

(5) Wilder predicted that by 1976 Canada will be a net importer of crude oil and by 1977 a net importer of energy.

(6) There are also potential economic problems associated with the financing and construction of a large diameter pipeline which would be necessary to move oil or gas out of the Arctic, for example: an increase in the exchange rate; disruption of capital markets; and inflationary pressures on wages and certain commodities.

Here the challenge is to not ignore objective scientific values inherent in the land, while recognizing subjective human values attributed to the land. Individual aspirations satisfied in the short-term may be inconsistent with the long-term public good.

CHAPTER EIGHT. THE ADMINISTRATION AND MANAGEMENT OF PUBLIC LAND
- SOME ALTERNATIVES.

What are some of the ways public land is managed today and which, if any, is best-suited to meeting the challenge contained in the above statement? This chapter will look at current approaches.

'Laissez-Faire'

What might be called the laissez-faire approach is one alternative to the management of northern land. Here, public policy would be limited to providing a legal device for the orderly transferral of public land to private ownership, whereupon the new owner would assume the role of land manager.

Inherent natural values in the land, including productive capacity, would be considered only to the extent that the private owner would have the right to convert these values into economic or social good on his terms and to satisfy his own needs.

The royal charter which established the Hudson's Bay Company in 1670, and transferred to that company sole rights, both surface and sub-surface, is an historic example of this approach.

Later the Dominion Lands Act which applied to those lands previously under the jurisdiction of the Hudson's Bay Company, reflected government policy of the 19th century which was to encourage the settlement of western Canada and its integration into the nation. In order to achieve this political objective much of the Act dealt with homesteads, pre-emption rights and railway land grants; it also made surveyed land, up to 640 acres,

available to individual purchasers at one dollar per acre and mineral claims at five dollars per acre. It would be fair to say that public policy of the day took little cognizance of the composite value and inherent properties, now recognized, in land.

Today the Territorial Lands Act, like the Dominion Lands Act which it replaced, is essentially a mechanism enabling the Government of Canada to dispose of Crown land and various rights to its use. The 1970 amendment to the Territorial Lands Act, although providing a measure of control over land use operations, contains, for example, no management provisions related to natural productivity but is simply a device for minimizing alteration of the land surface.

Thus what we have in the north today is a legislative and regulatory base for the disposition of public land and, in some cases, protection of the land surface.

Public Bureaucratic Management

The antithesis of the laissez-faire approach would be a series of government measures controlling land use and disposal practices. Such measures might include the discontinuance of land sales to be replaced by the leasing of rights for a specified use and the widespread application of regional land zoning. Government intervention could also take the form of direct involvement in the management and utilization of surface resources, for example northern timber.

The latter would require terminating existing timber leases, with the lessees receiving guarantees of future wood supplies. This approach has been followed in special situations for several years by the province

of Saskatchewan and more recently, the province of New Brunswick has established the New Brunswick Forest Authority and the province of Ontario, the Algonquin Forest Authority. In each case a government agency or Crown corporation is responsible for the management of public forests which includes harvesting timber and supplying forest companies with their roundwood requirements.

In December 1974 the Quebec National Assembly passed Bill 27, an Act to amend the Quebec Lands and Forests Act. It provides for a basic revision in the province's traditional system of providing timber to the forest industry. Under the new legislation companies will no longer hold exclusive cutting rights in particular areas (concessions), but will negotiate wood-supply agreements with the ministry. It is expected that by 1982 all timber limits now held by forest companies in Quebec will be withdrawn. The amendment is an attempt to 'reconcile competing commercial and social interests'.

The report of the Public Land Law Review Commission of the United States (1970) recommended the formation of a federal timber corporation to manage forest lands in the public domain which would be financed directly from timber sales. The recommendation has not yet been adopted and in fact has been widely criticized.⁽¹⁾

The direct involvement of government in land management has not been limited to public land. For example, in the province of Quebec where 30 per cent of the annual cut comes from private forest land (Lafond:1974)

(1) See Frome (1970:23-32) and Stoltenberg (1970:13-22).

the provincial government has introduced a policy for private woodlot management. The woodlot owner may enter into an agreement with the government whereby he will be paid to carry out silvicultural practices on his property provided he will not harvest the timber until directed to do so under a predetermined management plan.

Land policy embracing either the concept of laissez-faire or bureaucratic management does not necessarily recognize the natural and attributed values of the land nor does it deal with the various uses to which they could be put.

Multiple Use

An approach to land use which does attempt to recognize the composite value of land is the multiple use concept. The objective of multiple use land management is "to maximize net public benefit".

The Ontario Ministry of Natural Resources (1966) defined multiple use of forest and related resources as "the deliberate and carefully planned integration of various uses so as to interfere with each other as little as possible and to complement each other as much as possible". The United States 1960 Multiple Use and Sustained Yield Act for the national forests provided that decisions be made "...with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output" and the Act goes on to define sustained yield as "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources...without impairment of the productivity of the land".

From these definitions it is clear that the multiple use concept recognizes that land comprises diverse values and that in managing them, non-economic, as well as economic, factors should be considered.

The fact that a land area possesses composite resources such as soil, water, vegetation, wildlife, fish, birds, scenery and minerals makes multiple use possible. What the manager must do is consider those basic elements from the standpoint of such values as: water supply, flood control, timber, subsistence and sports hunting, fishing, agriculture and recreation, and determine that mix which will maximize net public benefit.

It is at this point that implementation runs afoul of conception. Who is the 'public' for whom the benefits are being maximized? Is it those who live in the immediate area, the region, the territory or the nation?⁽²⁾ The multiple use concept implies a need to coordinate two or more activities in the same area. But what is its geographic extent and how is it determined? The size of the area is inversely proportional to the possibility of conflict. But obviously the area can be so large that two or more simultaneous activities within it will have little or no relation to multiple use.

It is possible to have two non-competing uses within the same area which create demands at different times of the year, such as a winter snow road adjacent to bird nesting grounds. It is also possible to have simultaneous and complementary activities such as recreation and flood control measures.

⁽²⁾ Jeffrey (1970:7) spoke of the need to define the 'referent-group' so that a given area could be managed for the benefit of a described population.

Alston (1972:34) in discussing the United States' Multiple Use-Sustained Yield Act and the question of 'relative values' of resources said:

"It is apparent that in the struggle to get the legislation through the Congress by enlisting the support of diverse interest groups, it was necessary to guarantee that no priorities would be specified in the act. No priorities does not mean equal priorities; it means the absence of any specified priorities ... The weights to be assigned to each of the resource values appear to have been left for determination on a local or regional basis".

There are situations where the possible uses are conflicting, rather than complementary. Assuming the manager has given the relative values 'equal consideration', as suggested by Alston (1972:34), what then? Which use gets the nod?

According to the Society of American Foresters (1973) priorities of use on both public and private forest lands administered under the multiple use strategy are generally determined by the land administrators or managers, governed by the objectives of the landowner. When substantial doubt or controversy arises concerning such land use priorities, these priorities may best be established by the landowners themselves. The application of the multiple use strategy involves managing a specific forest area for a number of benefits and may result in: exclusive uses in some portions; the emergence of primary and secondary uses in other portions; and a general use category in still other portions where no one use justifies an exclusive or primary designation.⁽³⁾

(3) From a statement approved by the Council of the Society of American Foresters, June 25, 1973.

Multiple use land management embodies the 'equal consideration' principle whereby the maximum net public benefit is attained through harmonizing the production of various land values. The illustration of the snow road and the bird nesting grounds, two uses of the same area, in this case separated by seasons, is an example of the 'general use' category referred to above.

The second aspect of multiple use management identifies primary and secondary uses of the same area and permits the secondary activity provided it is compatible with what is considered to be the primary value of the area. Ontario's Algonquin Park is a case in point. The primary value of the area is considered to be recreation including hiking, canoeing and camping. However, under the Algonquin Forest Authority a management plan is being developed which will provide for timber harvesting operations within the park, compatible with the recreation activities.

Finally, exclusive use is defined as a use for which an area is reserved and managed which excludes other managed uses. The most common example of this category is a national park.

The Ecological Approach

Natural resource policy based on ecological criteria has been discussed by several authors including Caldwell 1970; Schultz 1967; Van Dyne 1969; and Watt 1968.

Ecologically based land policy takes a holistic approach which goes beyond the objective of harmonizing the production of various land values. Caldwell (1970:203) discussed it from the following perspective:

"...public land policy is based upon a set of historically derived assumptions - legal, economic, and political - that provide no means for taking the fundamental ecological context of land use into account. It is, of course, necessary to cope with land problems within the conventional context of public attitudes, laws, and economic arrangements, inadequate though they may be to encompass all of the land related needs of contemporary society. But it is also important to know that there is a larger context for policy with which laws and governments must ultimately reckon: it is the condition of the land as the physical base for human welfare and survival. If human demands upon the natural environment continue to mount, it will become necessary as a matter of welfare and survival to abandon present land policy assumptions for a policy of public management of human environment on ecologically valid principles."

The Pacific Northwest River Basins Commission (1973) attempted to incorporate ecological factors into a long-range plan for an area covering portions of four states in northwestern United States. The study included an evaluation of the 'carrying capacity' of the region's resources and attempted to relate per capita income and quality of life to natural resource productivity and appropriate pollution levels. The following statement from the Commission's (1973:77) report serves to summarize this approach to regional planning and land use:

"carrying capacity is the achievement, and management in perpetuity, of annual or regular periodic outputs or other functions of the various renewable natural resources without permanently impairing long term productivity, ecosystem integrity or the quality of land, air and waters and their environmental values. Within the above limitations, the quantity and quality of outputs or other functions can be varied in accordance with the quality and intensity of the management and technology inputs".

The 'carrying capacity' approach recognizes the necessity to incorporate scientific criteria into social and economic objectives but is hampered, like the multiple use concept, by subjective issues, such as 'appropriate pollution levels' and 'quality of life'.

A Northern Approach

Considering the four alternatives just discussed what should be the basic approach to a land policy for the 1.5 million square miles of Canada lying north of 60? It may help to frame the response to this question by first considering the following:

- (1) Although nearly all North American public land management agencies and many professional societies, such as the Society of American Foresters, espouse multiple use land management, it is interesting to note that in the view of both a forest economist (Zivnуска 1961) and a forest ecologist (Rowe 1974) multiple use is more of a slogan than a system. Although addressing the question of multiple use in a more positive vein, Smith (1974), a forest manager, spoke conditionally when he said:

"I believe that the idea of multiple use can become a 'dynamic management tool, flexible and adaptable' provided the planning process actively seeks public participation and takes into account changes in attitudes and social goals."

- (2) Based on the objective of 'maximizing values and benefits', both the doctrine of equal consideration and dominant use⁽⁴⁾ are re-

(4) 'One Third of the Nation's Land' (1970:48).

duced to subjective calculations. As we have seen, what is considered valuable and beneficial will vary depending on who the evaluator and beneficiary are and will also alter over time.

- (3) Northern Canada is distinctly different from southern Canada and a northern lands policy should reflect that fact. For example Canada's Arctic and sub-Arctic are low-energy environments and the potential yield from northern land and water is considerably less than in southern Canada (Dunbar 1972 and Cowan 1972).

It seems unlikely that northern Canada will ever be heavily populated even by Canadian standards. At present its population density of one person per 28 square miles is 150 times less than the national average.

Commercial forestland, cropland, pasture and grazing land comprise less than five per cent of the land area north of 60. However, those areas, as with the fish and wildlife resources which are broadly distributed throughout the north, are important to northern residents. Considering the long term, possibly the greatest potential of northern land will be its capacity to meet the recreational needs of the nation's growing population, in terms of open space, natural landscapes, aesthetic and perceptive values.

In returning to the question "what basic approach to land management will best serve the north?", the comfortable response is "multiple use" - with all of its options. It rings with a quiet confidence that all will be well.

Thus far, however, multiple use has been more of a concept than a management tool. Tysdal (1973:78), in a comprehensive study of the practice of multiple use in North America, concluded by saying:

"...multiple use as a concept has been widely accepted by the Canadian professional foresters and the public at large. But problems still exist over implementation practices as is the case in the United States."

The Canadian Institute of Forestry official statement on the subject of forest land policy was altered in 1975 by the deletion of the term 'multiple use' and its replacement by the term 'integrated use'. Within this context, the statement was further altered by the addition of the following:

"The correct balance of uses on an area should be based on optimum social and economic returns and must be subject to the necessity for maintenance of productivity and environmental quality."

At least two factors currently favour an ecologically based land policy in the north. At present there is very little alienated land; privately-held land accounts for less than one-quarter of one per cent of the total area. When the native lands claim issue is settled (a subject to which I will return), the amount of alienated land will increase substantially. This could pose a problem to comprehensive land management but for the present I assume it would not. The second, and equally important, point is that the north, although vast, is unencumbered by political boundaries which tend to inhibit a holistic approach.

Although relatively little northern land has been sold, surface and subsurface rights covering extensive areas have been issued by the Crown. Notwithstanding this and Caldwell's (1970) warning that it is

necessary to cope with land problems within the conventional context of laws and economic arrangements, the clear alternative for a northern lands policy is one based squarely on scientific criteria.

A northern lands policy should have as its dominant theme the maintenance and, where possible, the enhancement of the inherent productivity of the land. It would focus upon the natural values of soil, water and vegetation and might be described as policy based on the natural principles of land use.

CHAPTER NINE. LAND USE PLANNING

Why Plan?

'Public policy' may be considered to be a set of goals and a course of action designed to attain them, which in sum will maintain or improve the well-being of the general public.

Based on that definition, public land policy in northern Canada originated with the people of prehistoric times. Because the supply of available food was limited, it was necessary to husband the productivity of the land in the name of the camp, group or community. Thus, for example, no individual could acquire an interest in land nor could a group hunt in another's area without first obtaining permission to do so.

During the 18th and 19th centuries the traditional patterns of land use changed and so did the policy governing them. In order to meet an external demand northern land use diversified to include the search for valuable fur. The cohesiveness which was characteristic of the group or band during the precontact period was reduced; in some cases the communal concept of land rights gave way to individual rights and the concept of land ownership developed. Simultaneously an exogenous form of land policy was developing in the north through the Hudson's Bay Company which had acquired from the British Crown formal rights to Canada's northern land.

The acquisition of the territories by Canada in 1870 and the passage of the Dominion Lands Act two years later, provided the basis for formulating northern land policy under Canadian law. Federal land policy since 1872 has been essentially one of providing a mechanism for alienating Crown land and associated resources.

In Part Two we saw that the demands made on territorial lands today are diverse, sometimes conflicting, and rapidly increasing. Essentially, the administration of public land is a question of allocating a finite resource amongst several competing and sometimes conflicting uses, without reducing its value. From this it is clear that present northern lands policy must be expanded so that future decisions respecting land use and allocation can be made within the context of a technically sound land use plan.

Although it would be difficult to deny that some public planning is necessary, it is, nevertheless, not a concept which meets with universal enthusiasm. This is no doubt accounted for by the fact that as Clawson (1973:34) stated:

"if planning is to mean anything then it must be effective, this means it must prevent some people from doing what they would otherwise choose or push others into doing what they would prefer not to do, or both--unless planning and zoning are opposed to the interest of some landowners and users they are worthless."

Why Plan? Barlowe (1972:506) answered this question by saying that:

"unguided individual action often results in resource exploitation, social waste, and a shifting of costs to other members of society. They (the public) discover that social goals in land-resource use frequently involve extramarket considerations that cannot be achieved without social action and that public action can often be used to attain a higher or more nearly optimum level of resource development than would be feasible with purely private developments."

In more specific terms Bauer (1973:165) has suggested that land use planning is an important element in the administration and management of public lands for the following reasons:

"A plan is essential, first of all, to reduce general objectives, the impacts of which can only be vaguely perceived, to specific development proposals, the impacts and implications of which can be precisely perceived and readily understood."

That is to say the general objective "to safeguard critical wildlife habitat..." only becomes significant, for example, when specific areas have been delineated and the prohibition of certain forms of land use and restrictions on others have been specified.

"Second, a plan and the planning process that produces such a plan, is essential to monitor and evaluate the progress that is being made toward the attainment of the agreed-upon objectives.

"Third, a plan is essential to assure the proper coordination of land use development with the development of supporting transportation, utility, and community facility systems...

"Finally and perhaps most importantly, a plan is essential for coordinating and guiding land use development and redevelopment within multi-jurisdictional regions having essentially a single community of interest."

These last two points are particularly germane to the north. For example a decision made by the federal government respecting the development of a mine on federal land can have a substantial impact upon a community and its facilities, which are the responsibility of the territorial governments. In this case, land use planning would provide a mechanism for areawide coordination between the two levels of government and in turn would mitigate the problem of unscheduled demands upon the territorial government's budget and the provision of community services.

The Planning Process

Although we have discussed some of the reasons why land use planning is an important element in the administration and management of public land, several questions remain unanswered. For example: planning for what? how is it accomplished? by and for whom? what factors are considered?

Land use planning as it pertains to public land has been defined as an effort to systematize decision-making affecting land uses so as to bring about the orderly allocation of resources to fit society's demands (Stoddard, 1970:145).

The land use planning process consists of a number of steps which fall into one of three phases, viz:

- the determination of goals or targets;
- the formulation of a plan for attaining them;
- the implementation of the plan.

(a) Goals

The determination of a set of goals, whether by an individual, a family, a corporation or a public body, is not a process void of conflict, and establishing goals for the use of public land is no exception. It is perhaps this very point which illustrates the importance of the goal-determining process.

Phase one provides the opportunity for reconciling conflicting views and goals. Capitalizing on this opportunity will not only provide more likelihood of the plan's success, but will reduce the potential con-

flict during phase three, when decisions respecting land disposal and use have to be made.

The question 'who does the planning?' may also be partially answered at this point. To be of any consequence, the determination of goals requires considerable citizen participation, particularly by those residing in the area under consideration. Land is viewed differently by different sectors of society, a point which was discussed earlier. A land use plan which recognizes this, by considering and incorporating local knowledge, attitudes and goals, will probably enjoy more success and contribute more effectively to the administration and management of public land.

Land policy goals can be developed at various levels of abstraction. For example Schickele (1950:6) in discussing objectives in land policy referred to the 'maximization of social product over time' and the 'optimization of income distribution among people'. Johnson and Barlowe (1954:8) however pointed out that "in outlining goals or objectives it is not always easy to distinguish ends from means; the more specific the objectives considered, the more likely they are to be means toward more highly generalized objectives".

In using a less abstract approach they went on to discuss the following goals for public lands: military security; political stability; maximum national production; maximum income; economic security and stability; individual freedom; conservation of human resources;⁽¹⁾ and the conservation of natural resources.

(1) For example the reduction in the rate of unemployment.

Vlasin (1973:46) approached the question of land policy goals by suggesting that they could address such interrelated issues as economic growth, population settlement, population dispersion, rural-urban balance, selective growth and limitations on growth.

A less economic-oriented approach is discussed by Bauer (1973:164) who felt that public objectives for land use development should be concerned not only with the proper amount and location of land devoted to the various uses but also with "the protection of the underlying and sustaining natural resource base".

In determining a set of goals, or targets, for the use of public lands, it is necessary to follow a sequence which leads from the general to the specific. This applies particularly to the north which contains a vast area of unalienated public land now being administered without any reference to a land use plan.

The first level of planning should account for the natural values and properties of the land base, provide for their maintenance and protection and consider the potential uses of the land and its capability to meet various demands on a sustained basis. This provides a framework within which second stage refinements such as the location of transportation routes and the siting of new communities are considered. It is the first level of planning which should be applied to northern land at this time.

(b) Formulation and Implementation

The next step is the formulation of the plan within the context of, and for the purpose of attaining, the agreed-upon goals. Camp⁽²⁾ sug-

(2) Camp, Harry W., Pacific Southwest Forest and Range Experiment Station, Berkeley, California. Unpublished paper.

gested that first-level planning involves the consideration of a geographic area in terms of its resources and includes:

- the inventory and assessment of the region's resources including current use and potential;
- a determination of the needs and aspirations of the population associated with the region;
- a consideration of the use of the land and associated resources in terms of the population's needs and aspirations;
- proposing, and assessing the consequences of, implementing the best alternatives for achieving the desired patterns of land use;
- documenting the history of land use in order to compare the expected and experienced consequences; and
- repeating the process continuously in order to account for changing technology and human wants.

The second level of planning is more restrictive, and is concerned with attaining comparatively limited objectives. The planning process at this point includes decisions respecting such items as the routing of transportation facilities, the siting of an industrial complex or the acceptability of a particular form of land use.

Although it is desirable that specific land use decisions be made following, and in the context of, an adopted land use plan, the real world seldom cooperates to make that sequence possible. Land use decisions usually have to be made under less than ideal conditions and against a background of incomplete data and analyses. The objective then is to develop within the

planning process a systematic method of collecting, storing and retrieving data, designed so that the decision maker will have access to all relevant information in a form which he can use. Burgar (1974:108) in discussing land planning suggested that there are at least three levels for which an information system can be designed, viz: the researcher; the inventory interpreter; and the administrator-decision maker.⁽³⁾

Planning, however, calls for more than the collection and presentation of data, the analysis of demands, and the projection of trends. It also includes the consideration of alternate means for achieving goals, the determination of a course of action and recommendations as to what should be done. Nor does the process end with the production of a land use map and a set of proposals. To be of any value the plan must be implemented.

Reference was made earlier to the importance of public participation in determining goals for the use of public land. It is equally important during the formulation and implementation of a land use plan. For example the production of a map which contains a series of land use classifications, should incorporate the knowledge of local residents and others who are familiar with the area. The challenge lies not so much in assimilating the data derived from informed citizens, but in selecting representative views and balancing local needs against national interests.

(3) For a report on the nature, use and development of geographic information systems in Canada, with particular reference to the Canadian Geographical Information System operated by the Lands Directorate of Environment Canada, see Massam (1975).

Although citizen participation is important in the planning process, that a plan be fully acceptable to the public is not a valid objective. Indeed universal acceptance is perhaps the best indication that a land use plan is of little value.

In addition to presenting a balanced view of the facts, a plan must be administratively feasible and legal and sufficiently flexible so as not to render it obsolete when goals and objectives change; Bauer (1973:169) approached the question of land use planning by suggesting that the preparation of a good land use plan and its effective implementation would be assured by the use of the following criteria:

- "that the process produce a definite land use plan that can be legally adopted as a basis for implementation:
- that the process meet stated national as well as local land use objectives;
- that the plans produced be based upon adequate inventories, analyses, and forecasts of the pertinent factors affecting land use;
- that those plans be prepared at an adequate level of detail and be of a long-range nature;
- that the planning process illuminate and describe the alternatives considered, including the advantages and disadvantages of each alternative as compared to the selected plan;
- that the process be carried out for a rational planning area; and
- that the process provide for adequate involvement by elected public officials."

CHAPTER TEN. POLICY INTO PRACTICE

Introduction

In this chapter an attempt is made to provide a basic structure from which a policy for northern lands can be developed and implemented. This framework, which applies to more than one-third of Canada, contains features peculiar to the north, reflects many of the issues discussed throughout the study, and endeavours to face the current challenges inherent in northern land use.

Based on six underlying principles, a set of goals for territorial lands is suggested. Within the context of those principles and goals, three aspects of implementation are considered, viz: planning, legislation and administration.

(i) Underlying Principles

A northern lands policy must ultimately reflect regional differences and the physical diversity of territorial lands. Nevertheless it is possible to identify, initially, certain underlying principles which will characterize land policy throughout the north. These may be stated as follows:

- (a) territorial lands are capable of meeting a variety of needs;
- (b) northern lands policy recognizes the native peoples' legitimate claims with respect to land;⁽¹⁾

(1) Land settlement negotiations are currently underway between the Canadian Government and the Yukon Indians and are expected to begin with the Indians and Inuit of the Northwest Territories in 1976. For a review of the legal position of the Canadian native see: Hawthorn (1966:vol.I:211); and Cumming, Mickenberg et al. (1972).

- (c) improved land use practices do not automatically ensue from a policy which restricts the sale of Crown land nor which provides for direct government administration of resource harvesting;
- (d) northern lands policy will serve the public best if it endeavours to maintain the productive capacity of the land;
- (e) land use planning reduces the number of decisions made on an ad hoc basis or as political compromises among conflicting users; and
- (f) northern lands policy is consistent with the Canadian Government's national objectives and priorities for the North.

(ii) Goals in Northern Lands Policy

The next step is to determine a set of goals which is consistent with the above principles. It was pointed out earlier that the selection of public land policy goals requires considerable citizen participation, therefore the following should be considered as a possible basis for that discussion.

- (a) The transfer of land and associated resources to the native people of the territories in accordance with their legitimate claims;
- (b) the disposition of land in a manner which takes into account natural, social and economic values;
- (c) the distribution of land occupancy and use rights to northern residents and others who wish to exercise those rights;

- (d) the conveyance of rights to the use of land and associated resources for industrial and commercial purposes under arrangements that encourage efficient use and create economic opportunities for northern residents and Canadians generally;
- (e) the protection of the natural resource base and the maintenance or improvement of the land's productive capacity;
- (f) the allocation of land for a variety of public purposes, such as national and territorial parks, wildlife preserves, ecological reserves, archaeological and historic sites; and
- (g) the efficient administration of northern lands, recognizing the goal of the Canadian Government to further the evolution of the territorial governments.

(iii) Northern Land Use Planning

(a) Planning Area

It was suggested earlier that one of the criteria for an effective land use plan is that the planning process be carried out for a rational planning area. It would be necessary for a region of 1.5 million square miles to have many such areas.

These zones or sub-regions could be related to potential uses, such as a transportation corridor; alternatively they could be determined on the basis of the inherent physical and biological characteristics of a particular area. They might also be delineated in such a way as to include a particular group of settlements or communities which tend to share certain common interests or objectives.

An example of each of the alternatives cited would be, respectively:

- the 8000 square mile 'Mackenzie Development Area', established in 1973 by the Northwest Territories Government, to control development along the proposed Mackenzie Highway;
- Baffin Island or a group of Arctic Islands; and
- the four Mackenzie Delta communities of Aklavik, Inuvik, Arctic Red River and Fort McPherson, plus the coastal community of Tuktoyaktuk.

(b) Data Collection Within a Conceptual Framework

If northern lands policy is to have as its dominant theme the maintenance, and where possible the enhancement, of the natural productivity of the land, several things are essential, including:

1. a clear understanding of the physical and biological properties of the land;
2. recognition that the planning area, as a geographical region, is a part of a larger integrated natural system; and
3. that regional development, as it pertains to land use, must take into account the natural limits and potential of the land base.

Implicit in all three above is the necessity to develop a data base pertaining to the land in question. In discussing the question of an integrated approach to studies and data collection, for environmental management, Rowe (1974:123) stated that:

"...In order to collect the relevant data in an integrated way, the cooperators (in the collecting process) must be in agreement on basic concepts and approaches. They must recognize the same systems and subsystems, from the largest to the smallest, and agree on what anatomical and functional features are important. In the north the functional aspects that are central to all systems and all studies may, for example, be stream flow, permafrost degradation, erosion and biological production....Given a comprehensive conceptual approach that accepts the wholeness of environment and the hierarchical relationship of its parts, base line data collection can be directed in a meaningful way..."

In considering northern Canada there appears to be no consensus concerning integrated approaches to base data inventories (Romaine, 1974:4). Several approaches have been developed and tested including the biophysical land classification system, Lacate (1969), Jurdant et al. (1973), Romaine (1974); the ecological land survey, Jurdant (1974) and the integrated landscape survey, Dirschl (1974).

The latter was designed initially to produce an integrated landscape classification related to the potential route of a gas pipeline from the Canadian Arctic Archipelago to southern Canada. In pointing out that the system could also be adapted to the needs of land management throughout the territories, Dirschl (1974:268) stated:

"...a landscape classification and mapping system which integrates the relevant components of the natural system ...must therefore incorporate, evaluate and portray the following:

- (1) The land surface (materials and landforms) and the processes that are active in it;
- (2) The relationships of water to the land (surface and ground water);
- (3) Vegetation distribution, its relationships to the landscape, and its reaction to changes in the land; and
- (4) Wildlife distribution and its relationships to vegetation, water and land.

The resultant integrated maps (at a scale of 1:125,000)

subsequently provide a base from which, in conjunction with supplementary data, interpretive maps can be derived to portray the following ratings...

- (1) Land capability for wildlife...
- (2) Esthetic considerations, outdoor recreational potential...
- (3) Land capability for other renewable resources...
- (4) Land performance suitability for engineering development...
- (5) Terrain sensitivity to natural and man-made disturbance..."

(c) A Six-Step Approach

Based on this approach it is suggested that northern land use planning consists of the following steps:

Step One. The inventory and assembly of data, based on the integrated landscape mapping system described above, plus supplementary data, pertaining to several subject areas, including: soils; ground ice; geology (bedrock and surficial); water (surface and ground water); vegetation; climate; and landforms.

Step Two. In establishing a policy for the disposition and use of public land, current institutional arrangements, forms of tenure and land use must be recognized and accounted for. Since it is necessary to cope with land problems within the context of prevailing conditions, it will help if those conditions are recorded and systematically presented. Included in this category would be the following:

- block land transfer (BLT) areas;
- communities and community services not in BLT areas;
- areas reserved for native people;
- registered hunting and trapping areas;

- land alienations outside of communities and BLT areas;
- historic and archaeological sites;
- parks, territorial and national;
- wildlife reserves and bird sanctuaries;
- timber-lease areas;
- agricultural and grazing land in use;
- transportation facilities (e.g., roads and pipelines);
- non-renewable resources:
 - the location of proved oil, gas and mineral reserves;
 - quarries, and other areas of high potential.

Step Three. Following the data collection and assembly phases described above, a set of maps and a series of overlays, would be produced at a scale of 1:250,000. The preparation of mapped data for effective storage, retrieval and utilization, is an important element in the planning process. In recent years various data processing and computer systems have been in use, or under study, as aids to land use planning (Ross, 1974) and the management of associated resources (Falconer, 1969; Massam, 1975).

The maps derived from steps one and two would depict the following:

- (a) land capability in terms of renewable resource production;
- (b) land performance in terms of suitability for projects such as highways;
- (c) terrain sensitivity vis-à-vis man-made disturbance;
- (d) existing institutional arrangements such as block land transfer areas; and
- (e) current land use and occupancy such as transportation facilities and industrial sites.

Using this information, and working within the framework established by the previously defined goals and approach to northern land management, it is now possible to classify the land within the planning area.

Step Four. The classification process should be viewed from the standpoint of encouraging land use in a way which, at once, takes into account the peculiar biological and physical properties of the land base and effectively utilizes its productive capacity.

Land values and uses are interrelated and, in many cases, overlapping, therefore both the physical and conceptual boundaries separating them cannot be precisely delineated; nor should any attempt be made to do so. Nevertheless northern land can be seen as dividing into four broad categories, as follows:

Occupancy-use areas within which most land would be available, either under lease hold or lease-purchase arrangements.

Included in this category would be land either used, occupied or suitable for the following purposes:

- commercial and industrial sites in and adjacent to settled areas;
- year-round and recreational residences; and
- farm residences and agricultural land.

Integrated-use areas within which land would not be sold, and specific rights to the use of the land and/or associated resources could be acquired under lease or some lesser authority. Integrated-use areas would comprise land having a high capability rating in terms of one or more of the following:

- forest land;
- wilderness recreation: private and commercial;
- hunting and trapping; and
- territorial parks and campgrounds.

Land management within 'integrated-use areas' would be geared to the prime value(s) identified above, and any disposition of land or resource development (including non-renewable resources), would accord with the primary values and ensure at least the maintenance of the land's natural productivity.

Natural and scientific areas. Land within these areas could not be alienated and in most cases rights could not be acquired under lease or other similar arrangements. Use of the land within 'natural and scientific areas', other than that identified by the classification, would be permitted only under exceptional circumstances. These areas would include the following:

- the various parks under the Parks Canada program including:
 - natural parks;
 - natural landmarks;
 - wild rivers; and
 - marine parks.
- historic and archaeological sites;
- ecological sites; and
- critical wildlife areas.

Extensive-management areas would comprise the remaining land not included in any of the first three classifications. The prime values in these areas would be related to subsurface resources and the major land users

would be the mining and oil and gas industries. The objective of land management in the 'extensive-management areas' would be to minimize detrimental alteration of the land's surface resources.⁽²⁾

The criterion for distinguishing between 'integrated-use areas' and 'extensive-management areas' would be the relative capability of the land in terms of renewable resources, not the relative value in terms of non-renewable resources. Therefore an applicant who wished to establish, for example, a wilderness camp would be encouraged to do so in an 'integrated use' area because:

- (a) recreational values are higher; and
- (b) his operation would be better protected from competing land users.

Step Five. The final phase leading to an area's land use plan would include the following:

- (1) the production of a set of maps showing the planning area tentatively sub-divided into four groups, viz:

- Group I Occupancy-Use Areas
- Group II Integrated-Use Areas
- Group III Natural and Scientific Areas
- Group IV Extensive-Management Areas.

- (2) a public review of the first-approximation maps, through a series of regional and local land use planning meetings. The information gathered at this stage would supplement the local knowledge, other public input and available data, gathered during the inventory stage.

(2) For a discussion of the ecological impact of northern petroleum development see Bliss and Peterson (1973).

- (3) The refinement of the boundaries for the four classes of land, based on the additional information, and the production of the revised maps.
- (4) The allocation, and possible re-allocation, of administrative responsibilities amongst agencies and the possible revision of the legislative and regulatory base in order to implement the land use plan.

Step Six. It was stated earlier that first level planning should account for the natural values and properties of the land base, provide for their maintenance and protection and consider the potential uses of the land and its capability to meet various demands on a sustained basis.

The completion of step five represents the attainment of this first level and, in turn, provides a framework within which second stage decisions could be made. The kind of issues which would be considered at the second level of planning include:

- (1) The aspirations and needs of people within a particular planning area, for example:
 - (a) the allocation of land to native people under a land claims settlement;
 - (b) the reduction of unemployment and the improvement of per capita income and/or standard living.
- (2) The location of industrial operations and public works, such as:
 - (a) natural gas gathering systems;
 - (b) trunk pipelines for natural gas and crude oil
 - (c) roads.

(3) The allocation of land for a variety of public purposes, including:

- (a) national and territorial parks;
- (b) wildlife preserves;
- (c) ecological sites.

(v) The Native Claim

Morrow J. (1973:36) pointed out that in an address to the Queen by the Senate and House of Commons of Canada made in December 1867 respecting the acquisition of Rupert's Land and the North-Western Territories it was stated that "the claims of the Indian tribes to compensation for lands required for the purposes of settlement will be considered and settled in conformity with the equitable principles which have uniformly governed the British Crown in its dealing with the Aborigines". This policy statement was later embodied in legislation with the passing of the Dominion Lands Act, 1872 which stated in Section 42, "None of the provisions of this Act respecting the settlement of agricultural lands, or the lease of timber lands, or the purchase and sale of mineral lands, shall be held to apply to territory the Indian title of which shall not at the time have been extinguished".

Prompted by developments in the District of Athabaska an Order-in-Council of January 26, 1891 contained the following statement:

"the discovery in the District of Athabaska and in the Mackenzie River Country that immense quantities of petroleum exists within certain regions as well as the belief that other minerals and substances of economic value, such as sulphur on the South Coast of Great Slave Lake and Salt on the Mackenzie and Slave Rivers, are to be found therein, the development of which may add materially to the public weal, and the further consideration that several Railway projects in connection with this portion of the Dominion may be given effect to...appear to render it advisable that a treaty or treaties should be made with those Indians who claim those regions as their hunting grounds, with a view to the extinguishment of the Indian title..."

The subject of aboriginal rights has been treated in detail by Cumming (1973:87) who said:

"Aboriginal rights are those property rights which native people retain as a result of their original use and occupancy of lands. These property rights have always been recognized by English and Canadian law. The theory of aboriginal rights originated at least as early as the 17th century as part of international law as viewed by Great Britain, Spain, the Netherlands and perhaps some of the other colonizing nations. The basic notion was that, although a discovering nation took sovereignty to the lands in question, the native peoples retained property rights. At law these property rights appear to be complete except for two incidents peculiar to aboriginal land rights. First, aboriginal title can only be surrendered to the Crown; that is, the native peoples cannot make a private sale as the Crown is the only entity which can extinguish the title, either by purchase or conquest (expropriation). Secondly, the concept of aboriginal title is one of communal rather than individual ownership...."

In March 1973, 16 Indian Chiefs from the Northwest Territories signed a caveat claiming an interest in 400,000 square miles of land in the Mackenzie District of the Northwest Territories, an area covered by Treaties 8 and 11. When lawyers for the Indians tried to register the caveat the matter was referred by the Northwest Territories Land Registry Office in Yellowknife to Justice W.G. Morrow of the Supreme Court of the Northwest Territories. The Judgement of Morrow J., filed October 2, 1973 (No. 2247), established in part that:

"...those same indigenous people...are prima facie owners of the lands covered by the caveat - that they have what is known as aboriginal rights"

and

"...notwithstanding the language of Treaties 8 and 11 there is sufficient doubt on the fact that aboriginal Title was extinguished and therefore such claim for title should be permitted to be put forward by the Caveators."⁽³⁾

The Canadian Government subsequently appealed Justice Morrow's decision.⁽⁴⁾ On November 12, 1975 the Court of Appeal for the Northwest Territories ruled "...that unpatented Crown lands in the Northwest Territories in respect to which the Crown has conveyed no interest, is not land which has been brought within the operation of the Land Titles Act, and that accordingly the Crown's Appeal should be allowed and the Registrar directed to refuse to accept the Caveat..."

The native people north of 60 have stated that they are seeking a comprehensive settlement in which priority is given to land not money.⁽⁵⁾ In Part One we examined the extensive and effective manner in which land met the material and cultural needs of the northern Indians and Inuit. This relationship between man and the land has characterized the life of the north's native people until very recently. Considering this, the reasoning behind the native peoples' position that they are more interested

(3) For the argument leading to this decision see "Reasons for Judgement of the Honourable Mr. Justice W.G. Morrow (No.2) in the Matter of an Application by Chief Francis Paulette et al. to lodge a certain Caveat with the Registrar of Titles of the Land Titles Office for the Northwest Territories" dated Yellowknife, September 6, 1973.

(4) While awaiting the results of the appeal, the Government of Canada stated, through the Minister of Indian Affairs and Northern Development, that it was prepared to negotiate a comprehensive claim settlement with the Indians and Inuit north of 60 but was not willing to renegotiate Treaties 8 and 11.

(5) This position has been stated by both James Wah-shee, President of the Indian Brotherhood of the Northwest Territories (1974:8) and James Arvaluk, President of Inuit Tapirisat of Canada (1974).

in land than money is not obscure. To be able to manage and husband northern land for their own benefit appears to be a logical extension of history.

In March 1975 a plan, which ultimately took the form of a working paper, was presented by the Minister of Indian Affairs and Northern Development to the Council of Yukon Indians, outlining a proposal by the Canadian Government for a land settlement in the Yukon Territory.

It included the following:

- 128 acres per capita, or approximately 1200 square miles (roughly .6 per cent of the area of the Yukon) based on approximately 6000 persons of Indian blood. The terms of tenure to be discussed but Indians would have exclusive hunting, trapping and fishing rights;
- lots under fee simple ownership in the existing communities. The number and conditions of use to be negotiated;
- 15000 square miles of land would be designated as areas for the use and benefit of the native population. Hunting, trapping and fishing by non-natives would be restricted on these lands;
- the government would retain all of the subsurface rights but would consider some alternatives such as giving the native people:
- 50 per cent of the gross government resource revenues earned from the 1200 square miles referred to above; and
- 25 per cent of the gross government resource revenues earned from all other Yukon lands, up to a negotiated maximum.

While the Yukon Indians were preparing a counterproposal to the government's offer, the Indian Brotherhood and the Métis Association of the Northwest Territories met in the first round of negotiations with the Minister of Indian Affairs and Northern Development, April 28, 1975. Negotiations quickly terminated when the Minister rejected the native groups' claim of ownership of nearly 500,000 square miles of land in the Mackenzie District of the Northwest Territories.

Although no useful purpose would be served by suggesting, here, figures for either the amount of land or dollars upon which a land claim settlement should be based, an examination of the basis for, and approach to, land selection under a land claims settlement is within the context of this study.

Earlier we described an approach to planning the use of northern land based on a consideration of: land capability; land performance; terrain sensitivity; existing institutional arrangements; and current land use and occupancy. Within this context it was suggested that a northern lands policy should encourage land use in a way which effectively utilizes the land's productive capacity.

The resultant classification of northern land into four groups provides a basic structure for considering a variety of issues, including land selection under a native claims settlement.

For purposes of discussion, the following assumptions are made concerning a land claim settlement north of 60:

- a settlement will formalize the ownership of certain lands by native people;

- there is a more effective way for northern native people to participate in the social and economic life of the region and the nation than by establishing a series of reserves such as is found in the provinces;
- the native people will play a more active role in the administration, management and use of the north's renewable resources.

It is suggested that a land claims settlement pertaining to the people of native origin north of 60 should be structured as follows:

- Group I: lands selected from Group I or occupancy-use areas would be those upon which most native people would live, as well as sites suitable for commercial, industrial and service-type businesses in and adjacent to settled areas. Title to land selected from Group I would include surface as well as subsurface rights.
- Group II: land in this category is primarily valuable from the standpoint of one or more of the following: forest land; wilderness recreation and park land; hunting and trapping; and may be valuable in terms of subsurface resources. The selection made from Group II land would provide for a broad range of activities associated with renewable resources and would include, but would not be restricted to the traditional activities of hunting, trapping and fishing. It would be necessary to make a distinction between land to which title is transferred and land for which native peoples would have, for example, exclusive hunting, trapping and fishing rights or timber rights.

- Group III: no selection would be made from this category since Group III land comprises those areas which have been identified as either existing, or potential, sites for national parks and ecological sites; and historic and archaeological sites. Although no land would be allocated from Group III, the continuance of hunting, trapping and fishing activities by the native people, within national parks, would be provided for under Section 11.1 of the National Parks Act;
- Group IV: a percentage of the royalties derived from mineral, oil and gas production on Group IV lands (areas whose prime value is related to subsurface resources) and Group II lands would accrue to native organizations, up to a negotiated maximum.

The effect of this approach to a land claims settlement would be that northern Indians and Inuit would through a corporate structure, become managers of land, comprising a broad range of values. Wisely managed, such land and associated resources would sustain a variety of economic activities as well as provide a basis for maintaining those particular social and cultural values which native people deem to be important to them.

(vi) The Public's Role

Throughout this study we have stressed that the genesis of a northern lands policy should be a thorough understanding of the nature, capability and limitations of the land. It is also important to be aware of the human values respecting northern land, expressed in social, economic and cultural terms.

Although much has been said in recent years concerning the importance of public participation in the development of land policy, there have been few suggestions as to how it can be most effectively accomplished. The complexity of the problem was discussed by Clawson (1973:33) who said:

"How far should national or state land use planning be elitist? That is, how far should it be guided, or influenced, or dominated by the technical specialist or by the informed and concerned citizen? If elitist-oriented, which elite -- technical, professional, business, conservationist, or other? One may argue that all citizens should be involved in a matter as important as land use planning. But many citizens, most probably, are uninterested or unwilling to spend time and effort, or uninformed, or all of these. How far, if at all, can they be brought into the planning process and at what stage -- at the beginning, or throughout, or to accept or reject the product of the planners?...There is much loose talk in my judgement about citizen involvement in planning. I am all for it, but I think the matter is far more difficult than is often recognized."

Too there is the fundamental question of what is meant by public participation. Irland and Vincent (1974:182) suggested that citizen control in the decision-making process involving public lands could be divided into four categories as shown below.

A Continuum of Citizen Control in Land Use Decisions

<u>Levels of Citizen Control</u>	<u>Characteristics</u>
Weak	Bureaucratic form; decisions by technocrats; control through legislatures; public relations and administrative reports to superiors.
Nominal	Listening sessions, hearings; advisory groups selected or controlled by government.
Significant	Advisory groups selected or controlled by citizens or resource users; policy board with veto, controlled by users.
Strong	Control of policy, conduct, hiring and administration by policy board of citizens.

Adapted from: Irland and Vincent (1974:183)

In discussing citizen participation in resource management Castleden (1973) distinguished between pseudo-participation and degrees of increasing participation by considering five models, viz:

- (1) Information: a planner makes a decision and informs the public about it;
- (2) Persuasion: a planner makes a decision then persuades the public to accept it;
- (3) Consultation: a planner defines the problem, presents it to the public, invites comments and suggestions and then makes a decision;
- (4) Partnership: a planner prescribes the limits and within these, citizens share or assume decision-making responsibility;
- (5) Citizen Control: citizens have full rights to participate in⁽⁶⁾ and assume the responsibility for decisions.

We have suggested that a northern lands policy should first focus on the natural values of soil, water and vegetation in attempting to ensure the maintenance of the land's productivity. Implicit in this approach then is the need to understand the physical and biological relationships inherent in the land. Here the process must depend heavily on the scientist to systematically describe, in a usable form, the nature, capability and limitations of the land base.

While determining how the land may be used and how it might respond if used in certain ways, there is also the concomitant need to document present land use patterns, both natural and man-made. For example, in developing the land use information map series for the Northwest Territories and

(6) The citizens' role in land use planning was also discussed by Sharpe (1973:127-132).

Yukon Territory, information and data⁽⁷⁾ were derived from hunters, trappers, other local residents, university researchers and industry representatives, as well as resident government officers such as territorial government land agents. Public participation at this stage is informal and, other than providing a partial basis upon which to determine future policy, has few policy implications.

Following the production of the first-approximation land use planning maps, there is a second opportunity for citizen participation. At this stage the territorial land commission would:

- (1) give the tentative maps and supporting documents wide distribution;
- (2) conduct land use planning meetings within the planning area at which the maps and tentative classifications would be discussed; and
- (3) within a reasonable period of time expect to receive proposed amendments to the tentative land use planning maps, based on refinement or modification of the stated goals and/or additional knowledge concerning the region.

Another avenue for citizen participation would be through the proposed regional planning boards to be established under territorial ordinances. The territorial land commissions would expect the boards to provide regional

(7) Including: the location of hunting and trapping areas; traditional hunting and trapping practices; location and characteristics of important and critical wildlife areas and migration routes; domestic, commercial and sports fishing areas; fish migration routes; parks and points of recreation - tourism interest; location of resource industry development and settlement data.

views on such questions as the consequences of various forms of development and alternate patterns of land use, and periodically provide the commissions with projections on future possible development patterns, based on stated assumptions of growth.

And finally, the proposed territorial land commissions would have authority to conduct public hearings in connection with any matter related to its objects and in doing so, would have all the powers of a commissioner appointed under Part I of the Inquiries Act. This would represent the most formal aspect of public participation in the administration and management of northern land.

(vii) A Planning Authority

In his discussion of boards and commissions, Corry (1941) distinguished several types on the basis of their functions, viz.:

- (1) public ownership or operating boards;
- (2) marketing agencies;
- (3) those with purely advisory functions;
- (4) those with judicial but no regulatory function; and
- (5) those with powers to make rules and regulations which have the force of law.⁽⁸⁾

The proliferation of such boards and commissions, particularly the latter two classes, has evoked some apprehension (Finkleman: 1939); Corry: 1941

(8) Boards or commissions may also combine two or more functions, e.g., the National Energy Board and the British Columbia Energy Commission each have advisory, judicial and regulatory functions.

Carr: 1941).⁽⁹⁾ The principal causes of concern are their widespread discretionary powers and ability to make laws and regulations while, at the same time, not being responsible to the electorate.

Institutional procedures for determining and designating how public land is to be used vary widely. In the province of Alberta the Minister of the Department of Lands and Forests may by order classify public lands and declare the use for which he considers them to be adaptable.⁽¹⁰⁾ Within the department the 'land use assignment committee',⁽¹¹⁾ is charged with the responsibility of determining, and recommending to the Minister, broad land use zones for the province's Crown land.⁽¹²⁾ The zoning process in this case is an administrative tool, used to assist in the coordination of land management among various provincial agencies.

Ontario's Planning and Development Act, passed in 1973, broader in scope than Alberta's administrative land zoning process is entirely discretionary. Under the Act the Minister⁽¹³⁾ may by order, establish a

-
- (9) Others who have warned of the 'encroachment of bureaucracy' include: the Lord Chief Justice of England, Lord Hewart of Bury, *The New Despotism* (1929:16) London; and Sir William Mulock, former Chief Justice of Ontario, in 12 Can. Bar Rev. 1934: 18).
- (10) The Public Lands Act of Alberta, R.S.A. 1970, c. 297, s. 12.
- (11) Comprising a senior representative of: each of the four main divisions of the Department of Lands and Forests; the Department of the Environment; and the Department of Agriculture.
- (12) Crown land is divided into two land use zones, viz.: a forestry, wildlife and recreation zone (the Green Area), and an agriculture or settlement zone (the Yellow Area or White Area). In the Green Area no disposition is made without reference to the Forestry Division and only land suitable for the purposes applied for is disposed of in the Yellow or White Areas.
- (13) The Treasurer of Ontario and Minister of Economics and Intergovernmental Affairs. (R.S.O. 1970, c. 380).

'planning area' anywhere in the province (S.O. 1973, c. 51, s. 2(1)).

Upon establishing a planning area the Minister must:

- direct that a development plan be prepared;
- establish two or more advisory committees;
- appoint one or more hearing officers who will conduct hearings;
- and
- following the receipt of advice from the committees and the report(s) of the hearing officer(s), submit the proposed plan with his recommendations to the Lieutenant-Governor in Council.

The development plan may include the following: the identification of major land use areas; policy concerning the acquisition of land; and policy concerning the management of land and water resources. Following approval of the plan, or a modification thereof, by the Lieutenant-Governor in Council, any by-law, improvement or other undertaking within the planning area must conform to the development plan.⁽¹⁴⁾

The British Columbia Land Commission, established under the British Columbia Land Commission Act (B.C.S. 1973, c. 46) represents a third kind of planning authority. The Land Commission was initially envisaged (Bill No. 42, B.C. Legislative Assembly) as having power to classify Crown or private land within the province as agricultural, green belt, park land or land bank. In its final form the power of the Commission to designate private land as one of the latter three was deleted. Under the Act the Commission must purchase, by negotiated price, land it wishes to designate for any of those purposes.

(14) Under the Public Lands Act of the province of Ontario the Minister of the Department of Lands and Forests may establish classes of zones and may define the purposes for which public lands of each class may be administered (s. 16).

By using the regional district structure which was in place at the time the Land Commission Act was passed, and conducting mandatory public hearings within each district, a series of land reserve plans has been developed. If the Commission believes a plan carried out the intent of the Act it must, after approval of the Lieutenant-Governor in Council, designate the agricultural land shown on the plan as agricultural land reserve (s. 8.5). Once land is designated as an agricultural land reserve it may not be used for any purposes incompatible with agriculture without approval of the Commission.

The Commission, which comprises no less than five members appointed by the Lieutenant-Governor in Council, is authorized under the Act to dispose of, by sale, lease, or otherwise, Commission land and Crown land that is an agricultural, green belt, park or land bank land reserve, subject to terms and conditions set by the Commission.

(viii) Territorial Land Commissions

In the administration and management of public land in the north territorial land commissions are envisaged as fulfilling an advisory role. It is recommended that a land commission be established in each territory, (the Yukon Land Commission and the NWT Land Commission), which would:

- (1) Undertake the northern land use planning process described earlier, viz.:

- (a) implementing the collection of data and developing tentative land use maps, on a planning area basis.

This would require the effective coordination of several government agencies, as well as drawing on the expertise of non-government agencies and researchers;

- (b) conducting public hearings and utilizing the regional planning boards which are to be established under territorial ordinances, thereby providing a forum for direct public participation in the planning process, by both residents and non-residents of the planning areas;
- (c) making recommendations concerning the classification of land within a planning area, including specific recommendations, for example, concerning: agricultural land subdivisions and cottage areas which would be available for purchase, in Group I; the acquisition of timber rights in Group II; and the retention of specific ecological sites and critical wildlife areas in Group III;
- (2) Review, hold public hearings if necessary, and make recommendations concerning applications for major land use proposals by the private sector, such as the construction of a gas gathering system or major public works proposals such as the construction of a trunk highway;
- (3) Prepare studies and reports on any matter related to northern land management, requested by the Governor in Council, or the respective Commissioner in Council of the territorial government;
- (4) Consider the use of land and associated resources in terms of regional needs and aspirations; and assess the consequences of implementing various alternatives;

- (5) Document the history of land use in order to compare the expected and experienced consequences.
- (6) Provide, when requested by the native corporations (such as would be established under a Settlement Act as a result of the comprehensive claim negotiations):
 - (a) assistance in the land selection process; and
 - (b) a review of, and recommendations pertaining to, applications for land use on lands allocated to the native corporations; and
- (7) Provide a forum for the consideration of, and exchange of information on, land use proposals or land management practices with respect to 'native corporation lands' which might have an effect on adjacent areas or vice versa.

A Land Commission Act would contain authority for:

- (1) the establishment of a Yukon Land Commission and an NWT Land Commission consisting of nine members, of whom three would be appointed by each of the following: the Commissioner in Council; the native corporations; and the Governor in Council;
- (2) the chairman would be a full-time member of the commission and would be one of the three appointees of the Commissioner in Council;
- (3) the respective territorial government would provide each commission with such officers and employees from within the public service and such professional and technical advisers as are necessary for the commissions to function effectively.

- (4) the commissions to conduct public hearings in connection with any matters related to their objects and terms of reference, where they are satisfied that such a hearing would be in the public interest;
- (5) the Minister or the respective Commissioner to establish classes of land and to define the purpose(s) for which each is to be administered, and, with the approval of the Governor in Council or the respective Commissioner in Council to designate land within a planning area on the basis of such a classification;
- (6) a procedure by which application could be made to the Minister or Commissioner for amendments to delineated zones and the making of such amendments;
- (7) the land commissions to study and keep under review matters related to northern land and associated resources over which the Parliament of Canada or the respective Territorial Councils have jurisdiction and to recommend to the Minister or the respective Commissioner such measures as it considers necessary or advisable in the public interest for the management and utilization of northern land; and
- (8) studies, reports and recommendations of the land commissions and the response of the Minister or respective Commissioner to recommendations, to be made public.

(ix) Other Considerations

The current body of land law in the north will, with some alteration, meet most of the requirements beyond the planning stage.

Group IV

The major, and in most cases only land use to take place on Group IV lands would be related to the exploration, development and production activities of the mining and petroleum industries. Here the territorial land use regulations provide a measure of control over land use practices.

It was pointed out earlier that although those regulations apply to most land use operations throughout the north, they do not apply to mining in the Yukon Territory. To rectify that situation from a legal standpoint (in fact most of the mining industry in the Yukon has accepted the principle of the land use regulations), the present Yukon mining legislation would have to be amended.

The proposed Yukon Minerals Bill, if passed by the Parliament of Canada in its present form, will provide for the application of the territorial land use regulations. Section 8 of the Bill makes entry upon Yukon land for purposes of prospecting and locating minerals subject to section 3.2 and paragraph (i.1) of section 19 of the Territorial Lands Act. Section 31 (1) of the Yukon Minerals Bill would make the holder of a mineral claim wishing to develop a mine on his claim(s) subject to the same sections of the Territorial Lands Act. These sections say:

- 3.2 "The Governor in Council may...make regulations respecting
- (a) the protection, control and use of the surface of land in a land management zone; and
 - (b) the issue of permits for the use of the surface of land in a land management zone, the terms and conditions of such permits and the fees therefore." and

- 19 (i.1) "The Governor in Council may make regulations respecting the protection, control and use of the surface of territorial lands;"

The land use regulations, which were passed in 1971, have been tested in the Courts on two relatively recent occasions.

In March 1974 a holder of a land use permit was prosecuted under the Territorial Lands Act for failure to comply with one of the operating conditions stipulated in the land use permit. The permit holder attempted to quash the prosecution on a technical point involving the issuing of an extension to the permit. The Honourable Mr. Justice W.G. Morrow, sitting as a Magistrate, dismissed the application of the permit holder, taking the view that the extension was valid, hence the condition imposed upon the Applicant as the permit holder was valid. The written reasons for his decision included the following:

"In the view I take of the Legislation, Section 3.2(b) of the Territorial Lands Act gives legislative authority for making Regulations respecting the issue of permits. In stating that these regulations may include 'terms and conditions' I fail to see how the power to extend cannot be considered as being just as reasonable a type of term or condition as any of the other myriad of contingencies that those required to administer the legislation must anticipate in drafting the Regulations. In passing, I perhaps should observe that for the most part the land use operations with which the legislation under review here, is concerned, will be taking place in very remote areas of northern Canada, well away from the normal channels of communication and I am certain this was well understood by the Parliament of Canada when the above language was chosen. The application is accordingly dismissed..."

In the other case the Crown appealed a sentence imposed upon a firm which had unlawfully conducted a land use operation without a land use permit, asking that the amount of the fine be raised from what was con-

sidered to be a nominal sum. In upholding the appeal and increasing the fine the Honourable Mr. Justice W.G. Morrow of the Supreme Court of the Northwest Territories stated, in part:

"...I would be remiss as a judge in this territory if I did not take notice of the need and purpose of the present legislation, 'to protect, and control, the use of the surface of the land'; a land which although tundra in nature and frozen over for many months each year is nonetheless a delicate land, easily damaged and perhaps when once damaged, impossible to repair. This is without any mention of the possible use that our original inhabitants, in this case Eskimos, may still be making of it and how their way of life may still be dependent on its being preserved in its natural state... In cases of this kind to fine a corporation such as the present one a mere \$100.00 is to in effect invite breaches, to invite the gamble. Where the economic rewards are big enough persons or corporations will only be encouraged to take what might be termed a calculated risk. It seems to me that the Courts should deal with this type of offence with resolution, should stress the deterrent, viz. the high cost, in the hope that the chance will not be taken because it is too costly.

Keeping in mind the good record of the present respondent but applying the above principles I allow the Crown's appeal and fine (the company) the sum of \$2,000.00..."

Group III

Land designated at Group III would include national parks, national historic parks and sites, critical wildlife areas and ecological sites. Except for ecological sites⁽¹⁵⁾ there is specific federal legislation under which each form of land allocation can be administered.⁽¹⁶⁾

(15) In order to avoid the ambiguity of the word 'reserves', the term 'ecological sites' is used when referring to the Yukon Territory and Northwest Territories.

(16) The National Parks Act, the Historic Sites and Monuments Act and the Canada Wildlife Act.

Although no ecological sites have been established north of 60 to date, a significant amount of field work and preparation have been done toward the selection of specific areas that should be reserved. In considering ecological sites as a form of land-use it is necessary to recognize the fundamental difference between their purpose and the role of either territorial or national parks.

Whereas the use of a specified area of public land for recreational purposes is the sole objective of national parks and the principal objective of territorial parks, it is not even indirectly contained within the concept of ecological sites. By definition ecological reserves⁽¹⁷⁾ are legally protected natural areas established for scientific research and educational purposes, where human influence is kept to a minimum.

Ecological reserves are divided into three categories as follows:

- major ecological reserves which contain self maintaining ecosystems that include populations of large mammals, major geomorphological features, and diverse terrestrial and aquatic ecological communities;
- supplementary reserves which protect an economically and/or scientifically important component of an ecosystem, e.g., forest reserves containing representative tree populations, wintering areas of game animals or sanctuaries for endangered species; and
- special reserves which contain exceptional ecological or geomorphological features such as bird colonies or salt marshes.

(17) Ecological reserves or natural areas appear to be interchangeable terms; in Canada, it is only in the Yukon Territory and Northwest Territories that the term ecological sites is used.

Peterson (1974:21) suggested that there should also be a class of ecological reserve which will provide for the long-term monitoring of major disturbances such as mining for the purpose of assessing problems of natural recovery or reclamation.

In 1969, under the Canadian Committee for the International Biological Program - Conservation of Terrestrial Ecosystems, two Arctic panels were formed: Panel 9 (Tundra) and Panel 10 (Boreal Forest). By 1974 the two Panels had identified 140 candidate areas for establishment as ecological reserves, on federal land north of 60. Although 13 of the candidate areas are afforded some form of protection under existing statutes there is no specific legislation dealing with the establishment of ecological sites in the north.

Moir (1973:400) in his examination of natural areas and policy respecting land use stated:

"Natural areas are large or small segments of a regional landscape or seascape where present influences or effects of man's activities are minimal. The value of these areas for scientific and educational study often exceeds the commercial or economic value of the natural resources they harbor and warrants their long-term preservation and protection...Natural areas can therefore be used to monitor the environment, thereby alerting man to deleterious changes. When used as sampling stations for environmental surveillance, natural areas aid the interpretation of possible biological consequences of pollutant buildup. They also provide comparative data on yields and productivity from managed or altered ecosystems. Because of these and other perspectives that natural areas provide, their protection and permanence should be given a high priority in policies of land use."

Although there is no specific legislative authority for establishing and managing ecological sites in the north, there are various acts which could be used to designate and provide some degree of protection to areas of scientific value. These include:

- section 19(2) of the Territorial Lands Act which provides the Governor in Council with authority to set apart and appropriate territorial land for various public purposes which would include natural areas for scientific purposes;
- section 4(1) of the Canada Wildlife Act provides the Governor in Council with authority to assign the administration of any public land (including federal land in the two territories) to the Minister of the Department of the Environment where he is satisfied that such lands are required for wildlife research, conservation or interpretation;
- section 11(1) of the National Parks Act provides the Governor in Council with authority to set land aside in the territories for a national park;
- other legislation which would afford some protection to such sites includes territorial game and park ordinances.

It has been argued that establishing ecological sites under statutory authority, such as the above, would impose definite limitations on the comprehensive and long-term management objectives of the ecological reserves program (Peterson, 1974; Geist, 1973; Franson, 1972).

Those arguments aside, it would be more consistent with the concept of northern land management as developed in this study, if ecological sites

were provided for, and administered, under legislation specifically designed for the purpose. Therefore a 'Northern Ecological Sites Act' is proposed, the purpose of which would be:

- to provide for the establishment, administration, management and protection of specific natural areas in the Yukon Territory and Northwest Territories, for purposes of scientific study.

The proposed Act would include:

- (1) a description of the various kinds of ecological sites which could be established including areas:
 - (a) to be maintained in as near as natural state as possible;
 - (b) in which certain designated uses may be integrated, simultaneously or sequentially, so as not to interfere or detrimentally alter the natural values and uses within the site; and
 - (c) those which would serve to measure the effects of man's disturbances.⁽¹⁸⁾
- (2) a statement of the selection criteria for the three categories of ecological sites identified in the Act.
- (3) authority for the Governor in Council to set aside territorial land for ecological sites in either of the two territories according to one of the three categories, on the advice of the land commission and the recommendation of the Minister and after:

(18) This third approach to ecological reserves is discussed by Peterson (1973) and Jenkins and Bedford (1973).

- (a) consultation with the Council of the Yukon Territory or the Northwest Territories, as the case may be; and
 - (b) publication in Part One of the Canada Gazette, of each order setting aside land for an ecological site, and a reasonable opportunity for interested persons to make representations to the Minister concerning the order;⁽¹⁹⁾
- (4) authority for the Governor in Council to cancel, or delete any portion of an ecological site provided the Minister has:
- (a) requested and received the advice of the territorial land commission;
 - (b) published notice of the cancellation or deletion in Part One of the Canada Gazette and provided a reasonable opportunity for interested persons to make representations to him concerning the proposal.
- (5) a statement of restrictions, viz. 'territorial lands within the ecological sites shall not be disposed of or settled upon, and no person shall use or occupy any part of an ecological site, except under the authority of this Act or the pursuant regulations'.
- (6) authority for the Governor in Council to make regulations for:
- (a) the administration and management of the ecological sites;

(19) The sequence would be: (a) an order setting aside land as a reserve for an ecological site pending a native land claims settlement; and (b) an order setting aside land as an ecological site following native land claims settlement which would incorporate any necessary changes as a result of the settlement.

- (b) the protection of the land, flora and animals within the ecological site; and
- (c) the control, restriction or prohibition of any kind of use, development or occupation of the land and associated resources within an ecological site.

Under the British Columbia Ecological Reserves Act, 1971, the Minister may appoint a person or persons to advise him respecting any matter relating to the establishment and administration of ecological reserves (s. 9). The Quebec Ecological Reserves Act, 1974, makes it mandatory that the Lieutenant-Governor in Council establish a board of not more than 15 members to advise the Minister. In this regard, Section 10 of the Act says:

"Le Lieutenant-gouverneur en conseil constitue, pour aviser le ministre sur l'application de la présente loi, un conseil consultatif des réserves écologiques composé d'au plus quinze personnes, dont au moins six sont choisies parmi les fonctionnaires du gouvernement ou de ses organismes, nommés pour une période n'excédant pas cinq ans."

The land commission in each territory, established under the proposed land commission act, would fulfill this advisory function, as part of its responsibilities for land management. Each commission would consider submissions and representations concerning the establishment of ecological sites. In addition the commissions would advise the Minister on any other matters pertaining to ecological sites.

Group II

Land designated as Group II is considered valuable in terms of one or more of the following: forest land; pasture and grazing land; wilderness recreation private and commercial; hunting and trapping; and territorial

parks and campgrounds. Various territorial ordinances and the Territorial Lands Act provide for the administration and disposition of land or rights, where applicable, for each of the uses identified in Group II.

There is, though, a distinct weakness in the legislative base with respect to the management of the timber resource in terms of: timber disposition and utilization, harvesting procedures, reforestation, stand improvement and the practice of forestry generally. It will be necessary to introduce new legislation in this area before considering any large-scale forestry operations in the north.

The present statutory authority for the administration of timber in the territories lies in two sections of the Territorial Lands Act. Section 13 makes it unlawful for anyone to cut timber without a permit and Section 14 authorizes the Governor in Council to make regulations respecting the terms and conditions to be attached to such a permit, the prescribing and recovery of dues, and the suspension or cancellation of permits.

In essence, what is required is some basic policy with respect to forest management upon which new legislation can be based. It was suggested earlier that one of the underlying principles of a northern lands policy might be that:

- improved land use practices do not automatically ensue from a policy which provides for direct government administration of resource harvesting.

It was also suggested that two possible goals for a northern lands policy might be:

- the conveyance of rights to the use of land and associated resources for industrial and commercial purposes under arrangements that encourage efficient use...
- the protection of the natural resource base and the maintenance or improvement of the land's productive capacity.

The foregoing statements provide a basis for considering some aspects of forest management policy for the territories.

The various forms of forest tenure in use throughout Canada have been described extensively (Haley, 1971; Munro, 1971; Pearse, 1974) and it is apparent that the salient features of most tenure agreements is the provision of timber by the lessor to the lessee for conversion to marketable products. It is no doubt this fact that prompted Smith (1973) to say:

"Few forests are managed to provide the full range of goods and services which could be derived from them. Most are managed for one dominant use, established by the ownership rights, or lack of them, that govern the local situation."

Conventionally, Canadian foresters recognize the diverse value of the forest community, however it is usually the timber component which receives prime consideration. This is not difficult to understand considering the importance of the forest industry to the nation's economy. It is perhaps also significant that whereas timber values are easily quantified, the related values are not, hence the benefits which accrue from including them in management decisions are less concrete.

It seems appropriate, considering the nature of Group II land, to incorporate the concept of 'integrated-use' into any forest tenure agreements. Thus the agreement, while providing the lessee with rights to certain timber, would reflect the fact that the land comprises diverse values.

Timber in Group II areas would be made available for open competition. Bidders must show how harvesting methods and forest management practices would be carried out to complement other uses, such as recreation, sports hunting and fishing, subsistence hunting and trapping.⁽²⁰⁾ Any subsequent forest tenure agreement would include terms and conditions reflecting the composite value of the leasehold area.

In essence the forest company assumes the role of forest manager by first developing, in the application stage, a proposal based on an integrated approach to forest-land use, and subsequently as the lessee, carrying out the plan under a forest tenure agreement. In recommending this approach it is recognized that it does not accord with the current move toward government assuming more, and the forest industry less, responsibility for practising forest management as examined earlier in this study.

Closely tied to this approach to forest management is the concept of management incentives.

The position taken by the forest management committee of the Canadian Institute of Forestry in 1969 was that incentive should be such as to provide encouragement (to the lessee or tenant) to increase per acre productivity, with a minimum outlay of public funds while, at the same time, safeguarding the equity of the Crown.

Among the various forms of incentive cited was the replacement of conventional stumpage charges with a fixed land-use assessment that is based

(20) For a discussion of how one company has approached the question of various land uses within a timber leasehold area see Crossley (1975:46).

on the natural productivity of the land in its wild, unmanaged state. If the lessee, through his own management efforts, increased the productive capacity of his leasehold then his allowable cut would increase with no additional stumpage charges.⁽²¹⁾ If on the other hand the increased productivity was due to a shared program between the Crown and the tenant then the net returns or losses would be shared by the participants (Forestry Chronicle 1970).

A lump sum stumpage charge or fixed land use assessment⁽²²⁾ would appear to suit the type of tenure agreement called for earlier. If the timber under lease was in an area which designated timber production as the primary value, a lessee holding a renewable 20-year lease could be expected to initiate forest management practices in order to benefit from the stumpage free-increased differential in allowable cut.

On the other hand, if the proposed operation was to be in an area where wildlife habitat and recreation were of greater value, the Crown would assume forest management responsibilities and the revenues accruing

(21) Section 36(2) of the Forest Management Agreement between North Western Pulp and Power Limited and the Government of the Province of Alberta dated August 30, 1968, provides for just such an agreement. "When at any time hereafter by mutual agreement of both parties the basis for the payment of Crown charges has been changed from the measure of wood actually harvested to the calculated annual natural productive capacity of the forest management land (allowable cut), the Company shall not be required to pay dues for any wood harvested and utilized to a greater degree than it was required to by the original ground rules formulated under clause 12(4), nor for any extra wood produced by increased growth induced artificially by efforts of the Company exceeding its mandatory obligations."

(22) Subject to periodic adjustment and review to compensate for inflation, changing demands and changing technology.

to the Crown from stumpage based on volume cut would be used to develop and enhance the other values of the forest land.

Essentially what is lacking now is statutory authority to invest in improved management of, rather than administer, forest resources in the north. This becomes particularly important in the context of the above discussion concerning forest tenure agreements and management incentives. In order to implement a northern lands policy as envisaged in this study, it will be necessary to complete the legislative base by providing statutory authority for intensifying the management of forest land in the territories. This could be done by either passing a new act (the Northern Forest Act) or amending the present Territorial Lands Act.

The intent of such legislation would be to provide for the improved management and increased utilization of the forest land and associated resources of the Yukon Territory and Northwest Territories.

The proposed legislation would include:

- (1) authority for the Governor in Council to make various regulations on the advice of the Yukon Land Commission and the NWT Land Commission:
 - (a) the management and use of forest land;
 - (b) all aspects of reforestation and afforestation on territorial land;
 - (c) the procedure by which and conditions upon which various forms of forest tenure and rights to timber may be acquired.

(2) Authority for the Minister, on the advice of the land commissions and with the approval of the Governor in Council, to dispose of timber in various ways including by forest management agreement, as discussed under the subjects of tenure and management incentives above.

(3) Authority for the Minister to make various regulations including those governing:

(a) the use of land designated as Class II (integrated-use areas) under the proposed Land Use Planning Act;

(b) the submission of proposals, and assessments of proposals, for the acquisition of timber under forest management agreements or other form of disposition; and the preparation of working and operating plans;

(c) logging methods and wood utilization standards.

Group I

Occupancy-use areas would cover a relatively small area and include land which is either used, occupied or suitable for:

- commercial and industrial sites in and adjacent to settled areas;
- year-round residences; seasonal recreational residences; and
- farm residences and agricultural land.

The responsibility for administering land for the above purposes is now shared by the federal department of Indian and Northern Affairs and the territorial governments. The legislative authority for disposing of such

land is the federal Territorial Lands Act, the Yukon Lands Ordinance and the Commissioner's Land Ordinance, (NWT). Much of the land in Group I would lie within existing or proposed Block Land Transfer areas and would, therefore, be administered by the territorial governments.

The possibility is remote that the demand for territorial land, for private purposes, will ever reach the levels experienced in southern Canada. Nevertheless, there is, even now, in the Whitehorse, Yellowknife, Hay River and Inuvik areas, a relatively heavy and growing demand for land for a variety of purposes.

Returning to the statement of principles and goals governing a northern lands policy, there are at least three references which are pertinent to Group I land. First, there is the principle that improved land use practices do not automatically ensue from a policy which restricts the sale of Crown land. Second, it has been suggested that a northern lands policy should provide for: the distribution of land occupancy and use rights to northern residents and others who wish to exercise those rights; and, third, the efficient administration of northern lands, recognizing the goal of the Canadian Government to further the evolution of the territorial governments of the Yukon Territory and Northwest Territories.

What should be the government's policy for the alienation of Group I land which lies beyond the Block Land Transfer areas?

The following proposal is in response to the question.

- (1) Where land suitable for such purposes has been identified, specific areas within Group I should be designated and made available for the following purposes:

- (a) residential subdivisions;
 - (b) cottage subdivisions;
 - (c) agriculture including market gardens, greenhouses,
mixed farming and grazing land;
 - (d) commercial and industrial sites.
- (2) Land applied for must be located in an area or zone designated for the intended use;
- (3) Waterfront lots for either seasonal recreational or residential purposes would not be available for purchase but could be acquired under leasehold;⁽²³⁾
- (4) Grazing land and commercial and industrial sites would be available under lease, with the latter two available in some cases for purchase under a sell-back agreement as described in (5) below;
- (5) In the case of:
- (a) non-waterfront cottage lots;
 - (b) residential lots; and
 - (c) market gardens, greenhouse operations and mixed farming;
land would be available for purchase, following an initial lease period during which specific 'improvement commitments'

(23) In January, 1975, the Minister of the Department of Indian Affairs and Northern Development announced a 'cottage subdivision' policy whereby 30-year leases will be granted on the basis of an initial three-year term, followed by a 27-year renewal provided certain development commitments are met.

would have to be met. To be eligible to purchase the land, the lessee would have to be a Canadian citizen or landed immigrant, resident in Canada.⁽²⁴⁾

The sale of such land would be subject to a sell-back agreement whereby the purchaser agreed to use the land only for the purposes for which it was initially acquired. When an owner ceased to use the land for its intended purpose, he would have to be prepared to reconvey the parcel to the Crown at a price, based on a formula agreed upon at the time the original agreement was executed. The agreement would run with the land, being registered against the title, to protect the Crown's interest in perpetuity.

(24) A 1975 Supreme Court of Canada ruling upheld a 1972 amendment to Prince Edward Island's Real Property Act which requires non-residents to obtain Lieutenant-Governor in Council approval for purchases of more than ten acres or where shore frontage exceeds 330 feet.

CONCLUSIONS

The history of northern land use may be considered in terms of the following four phases: prehistory, the early fur-trade, development of mining, and the current concern for the composite value of northern land.

(1) Prehistoric man lived in what is now northern Canada for thousands of years. During this time, several distinct cultures evolved and were replaced in turn. A common characteristic of all northern cultures was their ability to husband available resources for survival, despite the low productivity of the land and the severity of the climate.

The native of the precontact period was totally dependent upon the land for his physical well-being. In addition the land held strong cultural and spiritual meaning for him. Neither the northern Indians nor the Inuit of this period conceived of land in terms of private property. Although personal property passed between individuals, there were no individual owners of land. As a prerequisite for survival, land belonged to the band or group.

(2) For many native people of the north the arrival of the fur trader resulted in the value of land assuming another dimension. Introduction of manufactured goods and European food staples, and a natural desire to acquire such commodities, resulted in a series of changes affecting the northern native.

One of these was his concept of land. The introduction of trapping as a means by which this new range of goods could be acquired sometimes resulted in the notion of land ownership. In some cases trappers were

identified with particular areas which became known as their traplines and in others trappers recognized the land rights of an individual or a family and accepted the notion of inheriting a trail from one's elders.

As a result of the fur trade, land assumed an additional value and land policy expanded to incorporate the concept of individual ownership.

(3) Mining activity at the end of the 19th century ushered in the third phase of northern land use. In this case the new land policy was formalized in government statutes, regulations and administrative procedures. Essentially, the new policy was to make land available for the exploration, development and production of subsurface resources, and much of the legislation developed then, and since, reflects this fact.

While the relative role played by the northern native has been considerably less in this phase than in the other two, the attendant exposure to western culture has had a marked effect on the northern native's way of life.

During this third phase, policy, attitudes and values respecting northern land were dichotomized. Those of the native hunter and trapper were expressed in unwritten form and those of the government were manifested in various legal and administrative institutions.

(4) We are now entering a fourth phase in northern land use. It is characterized by an increasing awareness of the composite value of northern land, including associated renewable as well as non-renewable resources, and a growing demand for rights to use land for a variety of purposes. Superimposed on this are the native peoples' demand that their land ownership

and other rights be formally recognized and the desire of both territorial governments to assume responsibility from the federal government for the administration and management of the north's natural resources.

Today the spectrum of northern activities requires land for such purposes as: community development; road, airstrip, pipeline and communication facilities; hunting, fishing and trapping; private, commercial and public recreation; timber harvesting, agriculture and grazing; mineral, oil and gas exploration and production; game preserves, bird sanctuaries and ecological reserves.

The Territorial Lands Act, the territorial governments' land ordinances and related regulations provide for alienating Crown land and reducing the alteration of the land surface as a result of specific land use operations. But there is a need for a process which takes into account the composite value of northern land and incorporates a course of action for guiding and determining decisions respecting the allocation of land for various uses.

The management of public land is a question of allocating a finite resource amongst several competing and sometimes conflicting uses without reducing its value. Beginning with the Dominion Lands Act, public land policy in the north has been essentially a series of responses to demands for land, rather than a framework within which decisions respecting use and management are made on the basis of the land itself.

This study proposes a new course for the administration and management of public land in the north based first on a consideration of the nature capability and limitations of the land.

In examining northern land in the context of:

- the evolution of uses, attitudes and values;
- the evolution of public policy as reflected in legislative and administrative institutions;
- various approaches to the management of public land;
- comprehensive land use planning;
- underlying principles and goals of a northern lands policy;
- a native land claims settlement; and
- a future legislative base, this study sets forth seven premises

and describes a set of six proposals as follows:

Premises

- (1) northern lands policy incorporates social and cultural values as well as economic and political ones;
- (2) northern lands policy reflects the nature, capability and limitations of the land;
- (3) northern lands policy recognizes the native peoples' legitimate claims to the land but does not limit the settling of such claims to the establishment of reserves, such as the Indian reserves, found in the provinces.
- (4) northern lands are capable of meeting a variety of needs and include values which cannot be measured in terms of their monetary worth;
- (5) future decisions respecting land use and allocation be made within the context of technically sound land use plans;

- (6) improved land use practices do not automatically ensue from a policy which restricts the sale of Crown land nor which provides for direct government administration of resource harvesting; and
- (7) because an area of 1.5 million square miles is involved, the administration and management of northern lands reflects regional differences and the physical diversity of the north.

Proposals

(1) That the future administration and management of northern lands incorporate a course of action for guiding and determining decisions respecting land use and allocation, rather than simply a series of legislative and regulatory measures for the conveying of rights to the use of land and associated resources. This course of action may be described as 'northern land use planning' and would:

- (i) account for the natural values and properties of the land base;
- (ii) consider the potential uses of the land and its capability to meet regional needs and aspirations, as well as to attain regional and national goals;
- (iii) propose, and assess the consequences of various forms of land use and development; and
- (iv) monitor and document land use in order to take remedial action if necessary and compare the actual with the estimated effects in order to improve performance in the future.

(2) That a Yukon Land Commission and an NWT Land Commission be established with authority to act in an advisory capacity to the respective Territorial Government and the Canadian Government on a broad range of issues dealing with northern lands. Each commission would: be responsible for the land use planning process; have authority to call public hearings in connection with any matter related to its broad responsibilities for land management; and, provide assistance, when requested by the native people, on matters related to land acquired as a result of the comprehensive claim settlements. Each commission would be provided with a full-time staff and have authority to retain other professional and technical advisers.

(3) That for purposes of administration and management, northern land be classified according to four groups, on the basis of:

- (i) land capability in terms of renewable resources;
- (ii) land suitability in terms of major engineering works;
- (iii) terrain sensitivity to man-made disturbance;
- (iv) existing institutional arrangements; and
- (v) current land use and occupancy.

The composition of land use within each of the four groups would be as follows:

Group I: Occupancy-use Areas

Includes land which is either used, occupied or suitable for the following: permanent residences; seasonal recreational residences, farm residences and agricultural land; and commercial and industrial sites in and adjacent to settled areas.

Group II: Integrated-use Areas

Includes land valuable in terms of: forest land; wilderness recreation, private and commercial; hunting and trapping; and territorial parks and campgrounds.

Group III: Natural and Scientific Areas

Land in this category includes the various kinds of National Parks under the Parks Canada program including: natural parks, natural landmarks; wild rivers; and marine parks. In addition, Group III would include: historic and archaeological sites; critical wildlife areas; and ecological sites.

Group IV: Extensive-Management Areas

The prime values of Group IV land would be related to sub-surface resources but the criterion for distinguishing between Group IV and Group II land would be the relative capability of the land in terms of renewable resources not the relative value in terms of non-renewable resources.

(4) That the legislative base pertaining to northern lands be extended in order to provide for land use planning and the comprehensive management of the north's land and forest resources.

(5) That the government's policy for the alienation of Group I land which lies beyond the Block Land Transfer areas would be as described in the previous chapter.

(6) That the native land claims settlement provide the northern Indians and Inuit with land and associated resources comprising a broad range of values. If managed wisely this land would sustain a variety of economic activities as well as provide a basis for maintaining desired social and cultural values. In addition to those values associated with hunting, trapping and fishing, such land would include, for example, timber, and recreational values. Under this proposal the administration and management of the surface resources within delineated areas would be the responsibility of the native groups.

(7) That citizen participation be provided for in the northern land use planning process through:

- (i) a land commission to be established in each territory;
- (ii) the regional planning boards to be established under the territorial planning ordinance which would provide a public forum for participating in the development and refinement of an area's land use plan, under the direction of the land commissions; and
- (iii) the public hearings conducted by the territorial land commissions.

The Role of the Territorial Governments

The transfer of the natural resources north of 60 from federal to territorial jurisdiction involves a political decision which lies beyond the context of this study. But it can be concluded that a northern lands policy as described herein should involve the territorial governments more in the management of Crown lands in Canada's northern territories.

The assumption of additional responsibilities by the territorial governments would be consistent with the Canadian Government's national objectives for the north, one of which is "to further the evolution of government in the northern territories".

It is envisaged that the future role of the two territorial governments in the administration and management of Crown land north of 60 would expand, in line with the proposal described in the study, as follows:

- (1) Each territorial government would have a department of lands and forests comprising several branches including: parks, wildlife, land administration, timber management and forest protection;
- (2) Under the proposal virtually all northern residents would live, work and play on Group I lands. At this stage in the evolution of northern land administration it appears unnecessary to continue the duplication of administrative services now provided by the federal and territorial governments. Each territorial government already administers two of the three pieces of legislation which pertain to Group I land.⁽¹⁾ The whole administrative procedure could be streamlined further by making the administration and management of Group I land, a territorial government responsibility under territorial ordinances;

(1) These are: in the Yukon Territory, the Yukon Lands Ordinance and the Area Development Ordinance; in the Northwest Territories, the Commissioner's Land Ordinance and the Area Development Ordinance. The federal legislation applicable in both territories is the Territorial Lands Act. In addition the respective Commissioner in Council may make ordinances with respect to agriculture, the Northwest Territories Act (s. 13v) and the Yukon Act (s. 16v).

- (3) Each territorial government would assume the administrative responsibility for the remainder of the Crown land north of 60 except for Group III lands such as National Parks.

The responsibility for administering federal legislation such as the Territorial Lands Act or the proposed Northern Forest Act, which would apply in Group II and Group IV lands, would be delegated to the territorial governments and the territorial departments of lands and forests.

Through the territorial land commissions the two territorial governments would effectively participate in the management of northern lands and associated renewable resources.

It is evident that the composite value of northern land today reflects the historic and universal relationship existing between man and the land. In developing a northern lands policy it is important to ensure that it incorporates social and cultural as well as economic and political values. Future policy respecting northern land ought to be based on a sound appreciation of the land itself. Decisions respecting allocation, alienation, utilization and management must be made within the context of the nature, capability and limitations of the land.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Ackerman, Joseph; Clawson, Marion, and Harris, Marshall, eds. Land Economics Research. Resources for the Future, Inc. Washington, D.C., Baltimore: The John Hopkins Press, 1962.
- Alston, Richard, M. FOREST - Goals and Decision making in the Forest Service. USDA Forest Service Research Paper, INT-128, September 1972,
- Arvaluk, James, "Inuit Land Claim." Third Annual General. Assembly of Inuit Tapirisat of Canada, Cambridge Bay, NWT., October 1974, Vancouver Province, October 16, 1974.
- Balikci, Asen. Some Acculturative Trends Among the Eastern Canadian Eskimos. Anthropologica, Vol. 2, 1960, pp. 139-153.
- _____. Vunta Kutchin Social Change - A Study of the People of Old Crow, Yukon Territory Department of Northern Affairs and National Resources, Ottawa February, 1963.
- Barlowe, Raleigh, Land Resource Economics - The Economics of Real Property. 2nd ed. Englewood Cliffs, N.J.: Prentice-Hall, 1972.
- Barrow, Thomas D., "Industry Looks at Land Use." in National Land Use Policy, Soil Conservation Society of America, Ankeny, Iowa, 1973, pp. 118-124.
- Barry, Frank J., "Administrative Procedures and Federal Legislative Jurisdiction." in What's Ahead For Our Public Lands. Natural Resources Council of America, Washington, D.C., 1970, pp. 92-99.
- Bauer, K.W., "National Land Use Policy and the Need for Land Use Plans." in National Land Use Policy, Soil Conservation of America, Ankeny, Iowa, 1973, pp. 161-172.
- Beals, C.S., ed., Science, History and Hudson Bay. Ottawa: Queen's Printer, 2 vols., 1968.
- Beauchamp, K.P. Land Management in the Yukon Territory and in the Northwest Territories, unpublished paper, Faculty of Law, University of British Columbia, 1973.
- Berry, J.W., "Commentary on paper entitled 'Native People's Perception of the Land' by A.W. Blue," in Canadian Public Land Use in Perspective. eds. Nelson, Scafe and Kouri, Social Science Research Council of Canada, Ottawa, 1973, pp. 202-205.
- Biggar, H.P. The Early Trading Companies of New France. University of Toronto Library, 1901.

- Blue, A.W., "Native People's Perception of the Land" in Canadian Public Land Use in Perspective, eds. J.G. Nelson, R.C. Scace, R. Kouri, Social Science Research Council of Canada, Ottawa, 1973, pp. 192-201.
- Bird, J. Brian, The Natural Landscapes of Canada - A Study in Regional Earth Science. Toronto: Wiley Publishers of Canada Limited, 1972.
-
- The Physiography of Arctic Canada. Baltimore, Md.,: The Johns Hopkins Press, 1967.
- Birket-Smith, Kaj, The Caribou Eskimos Material and Social Life and Their Cultural Position. Copenhagen: Report of the Fifth Thule Expedition, 1921-24, vol. V, 1929.
- Bliss, L.C., "Oil and Ecology of the Arctic," in The Tundra Environment, The Royal Society of Canada, Toronto and Buffalo: University of Toronto Press, 1970, pp. 1-12.
- Boon, T.C.B., The Anglican Church from the Bay to the Rockies: A History of the Ecclesiastical Province of Rupert's Land and its Dioceses from 1820 to 1950. Toronto: The Ryerson Press, 1962.
- Bostock, H.S., The Physiography of the Canadian Cordillera with Special Reference to the Area North of the 55th Parallel. Geol. Surv. Can. Mem. 247, 1946.
-
- A Provisional Physiographic Map of Canada. Geol. Surv. Can. Paper 64-35, 1964.
- Brauhtz, J.F. Peel, ed. Coastal Zone Management: Multiple Use With Conservation. New York: John Wiley and Sons, Inc., 1972.
- Brewer, Michael F., "Resource Quality: New Dimensions and Problems for Basic Policy." in Natural Resources: Quality and Quantity. Edited by S.V. Ciriacy-Wantrup and James J. Parsons. Berkeley and Los Angeles: University of California Press, 1967, pp. 197-212.
- Brown, R.J.E., Permafrost in Canada. Toronto: University of Toronto Press, 1970.
- Brown, R.J.E. and Péwé, T.L. "Distribution of Permafrost in North America and Its Relationship to the Environment: A Review, 1963-1973" Second International Permafrost Conference, Yakutsk, U.S.S.R., North American Contribution, National Academy of Sciences, Washington, D.C., 1973.

- Burgar, R.J., "Working Group Report." in Proceedings, Canadian North-lands Data Needs Seminar. The Natural Resource Institute, The University of Manitoba, Winnipeg 1974, pp. 107-109.
- Burton, T.L., Natural Resource Policy in Canada. Toronto: McClelland and Stewart Limited, 1972.
- Caldwell, Lynton K., The Ecosystem as a Criterion for Public Land Policy. Natural Resources Journal, Vol. 10, No. 2, 1970.
- _____, "Policy, Planning and Administration" in What's Ahead For Our Public Lands? Natural Resources Council of America, Washington, D.C., 1970, pp. 116-128.
- Campbell, M.C., The North West Company. The Macmillan Company of Canada Limited, 1957.
- Campbell, Robert, Two Journals of Robert Campbell Chief Factor, Hudson's Bay Company, 1808 to 1853. Limited edition. Seattle, 1958.
- Camsell, Charles, Canada's New Northwest. The North Pacific Planning Project, Ottawa 1947.
- Carpenter, E.S., "Space Concepts of the Aivilik Eskimos." Explorations 5: 1955, pp. 131-145.
- Carpenter, Edmund; Varley, Frederick and Flaherty, Robt. Eskimo. Toronto: University of Toronto Press, 1959.
- Carr, C.T., Delegated Legislation. London: Cambridge University Press, 1921.
- Castleden, D., "Citizen Participation In Resource Management." presented at the Man and Resources Conference, Toronto, 1973.
- Cinq-Mars, Jacques, Preliminary Archaeological Study, Mackenzie Corridor. Information Canada, Cat. No. R72-8273, 1973.
- _____, Preliminary Archaeological Study, Mackenzie Corridor. with Appendices by Paul F. Donahue and Timothy C. Losey; Information Canada, Cat. No. R72-138/1974.
- Ciriacy-Wantrup, S.V. and Parsons, J.J., eds. Natural Resources: Quality and Quantity. Berkeley and Los Angeles: University of California Press, 1967.
- Clawson, Marion, Land For Americans. Chicago: Rand McNally and Company, 1963.

Clawson, Marion, "A Look to the Past and a Look to the Future" in National Land Use Policy, Soil Conservation Society of America, Ankeny, Iowa, 1973, pp. 23-27.

"Social Needs and the Urban-Marine Environment" in Coastal Zone Management-Multiple Use with Conservation. Edited by J.F.P. Brahtz, New York: John Wiley and Sons, Inc., 1972.

Clawson, M.; Held, R.B.; and Stoddard, C.H. Land For the Future. Baltimore, Md.: The Johns Hopkins Press, 1960.

Cook, J.P., and McKennan, R.A. The Village Site at Healey Lake, Alaska: An Interim Report. Paper read at the 35th Annual Meeting of the Society for American Archaeology, Mexico City, 1970.

Cooke, Alan; and Holland, Clive, "Chronological List of Expeditions and Historical Events in Northern Canada." in The Polar Record. Scott Polar Research Institute, Cambridge, England, 1970 and 1971.

Cooper, W.E.; and Vlasin, R.D. "Planning From an Ecological Perspective - An Overview." an unpublished paper, Michigan State University.

Corry, J.A. "Genesis and Nature of Boards," in Canadian Boards at Work Edited by John Wills, Toronto: Macmillan Company of Canada Ltd., 1941.

Cowan, I. McT. "Ecology and Northern Development." Arctic, Vol. 22, No. 1, Mar. 1969, pp. 3-12.

"An Overview With Particular Reference to Fish and Wildlife" in Science and the North: A Seminar On Guidelines for Scientific Activities in Northern Canada 1972, Information Canada Cat. No. R72-7172.

Crossley, D.I. "Case History in Forest Management: First 20-year Cycle at North Western." in Pulp and Paper Canada, Vol. 76, No. 5, May 1975.

Crowe, K.J. A Cultural Geography of Northern Foxe Basin, N.W.T. Queen's Printer for Canada, Cat. No. R72-6070, 1970.

A History of the Original Peoples of Northern Canada. Arctic Institute of North America, McGill. Queen's University Press, 1974.

- Cumming, Peter A.; and Mickenberg, Neil, H. eds. Native Rights in Canada. 2nd ed. The Indian-Eskimo Association of Canada in association with General Publishing Co., Toronto, 1972.
- Cumming, Peter A. "Our Land - Our People: Native Rights North of 60." in Arctic Alternatives. Edited by Douglas H. Pimlott; Kitson M. Vincent; and Christine E. McKnight, Canadian Arctic Resources Committee 1973, pp. 86-110.
- Dansereau, Pierre. "Megalopolis: resources and prospect." in Challenge for Survival, New York: Columbia University Press.
- Dawson, G.M. Report on an Exploration in the Yukon District, N.W.T. and Adjacent Northern Portion of British Columbia, 1887. Geological Survey of Canada, Queen's Printer, 1898.
- Dilworth, J.R. Land Use Planning and Zoning. Corwallis: The Department of Printing, Oregon State University, 1971.
- Dirschl, H.J. "Integrated Landscape Survey of Potential Gas Pipeline Routes on the Arctic Islands and Adjoining Arctic Mainland." Paper presented at technical workshop to develop an integrated approach to base data inventories for Canada's northlands, Toronto, 1974. Lands Directorate, Environment Canada, Ottawa, 1974.
- Duchaussois, Rev. P., O.M.I. Mid Snow and Ice - The Apostles of the North-West. London: Burns, Oates and Washbourne Ltd., 1923.
- Dunbar, M.J. "Renewable Resources." Paper presented at Science and the North: A seminar on guidelines for scientific activities in northern Canada 1972. Information Canada Cat. No. R72-7172.
- Duerden, Frank. "The Evolution and Nature of the Contemporary Settlement Patterns in a Selected Area of the Yukon Territory." Series 2: Research Report No. 3. Centre for Settlement Studies. The University of Manitoba, March 1971.
- Earl, D.C. Tiberius Gracchus, A Study in Politics. Latomus Revue, D'études Latines, Bruxelles-Berchem, 1963.
- Ecology and the Economy - A Concept for Balancing Long-range Goals. Pacific Northwest River Basins Commission. Vancouver, Washington.
- Emmelin, Lars. "Developmental - Environmental Planning in Sweden." Ambio-Royal Swedish Academy of Sciences/Universitetsforlaget. Vol. 11, No. 1-2, 1973, pp. 26-30.
- Essays on Mid-Canada. Presented at the first session Mid-Canada Development Conference, August 1969. Toronto: Maclean - Hunter Limited, 1970.

- Falconer, Mary. "Forest Inventory by Computer Meets Government Demands." Canadian Forest Industries. July 1969.
- Finkleman, J. "Government by Civil Servants." Can. Bar Rev. Vol. 17, 1939.
- Forestry Chronicle 1970. The Canadian Institute of Forestry Incentive Resolution. August 1970.
- Franklin, John, Captain, R.N. Narrative of a Second Expedition to the Shores of the Polar Sea 1825, 1826, 1827. London: John Murray, 1828.
- Franson, R.T. "Legislation to Establish Ecological Reserves for the Protection of Natural Areas." Osgoode Hall Law Journal 10(3) 1972, pp. 583-605.
- Frome, Michael. "The Environment and Timber Resources." What's Ahead For Our Public Lands? Natural Resources Council of America, Washington, D.C., 1970.
- Fulton, R.J., et al. "Terrain Mapping in Northern Environments." Paper presented at technical workshop to develop an integrated approach to base data inventories for Canada's northlands. Toronto, 1974. Lands Directorate, Environment Canada, Ottawa, 1974, pp. 14-60.
- Geist, V., ed. Arctic Ecological Reserves. Summary document, Canadian Committee for the International Biological Programme, 1973.
- Giddings, J.L. The Archaeology of Cape Denbigh. Brown University Press, 1964.
- Gill, Don. "A Spatial Correlation Between Plant Distribution and Unfrozen Ground Within a Region of Discontinuous Permafrost." Second International Permafrost Conference, Yakutsk, U.S.S.R., North American Contribution, National Academy of Sciences, Washington, D.C., 1973.
- Graham, Edward H. Natural Principles of Land Use. New York: Oxford University Press, 1974.
- Haag, W.G. "The Bering Strait Land Bridge." Early Man in America. Edited by Richard S. MacNeish. San Francisco: W.H. Freeman and Company, 1972.
- Hakluyt, Richard. The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation. London and Toronto: J.M. Dent and Sons Limited, 1927.

- Haley, D. "Influence of Public Policies on the Development of the Forestry Sector in British Columbia." in Management of American Agricultural Economics Association. Carbondale, Illinois, August 1971.
- Hamelin, Louis-Edmond. "What Is Next in Territorial Politics: Stop, Step Forward or A New Start?" in The Musk-Ox, Saskatoon, No. 14, 1974, pp. 3-6.
- Hamelin, L.E., and Cook, F.A. Le Periglaciaire par l'image. Québec: Les presses de l'Université Laval, 1967.
- Hare, F.H. "The Arctic." Quarterly Journal of the Royal Meteorological Society, 94 (1968), pp. 439-459.
- _____. "The Tundra Climate." Transactions of the Royal Society of Canada. 4th Series, 7 (1970), pp. 393-399.
- Hare, F.H., and Ritchie, J.C. "The Boreal Bioclimates." Geographical Review, 62 (1972), pp. 335-365.
- Hare, F.H., and Thomas, M.K. Climate Canada. Toronto: Wiley Publishers of Canada Limited, 1974.
- Hargrave, M.R. "Changing Settlement Patterns Amongst the Mackenzie Eskimos of the Canadian North Western Arctic." The Albertan Geographer, No. 2 (1965-66), pp. 25-30.
- Hawthorn, H.B. "Maori - A Study in Acculturation." American Anthropologist New Series, Vol. 46, No. 2, Part 2, April 1944.
- _____. ed. A Survey of the Contemporary Indians of Canada. A report on economic, political, educational needs and policies in two volumes. Indian Affairs and Northern Development publication No. QS-0603-020-EE-A-18, 1966-1967.
- Haynes, C.V. "The Earliest Americans." Science, Vol. 166, pp. 703-715.
- Hearne, Samuel. A Journey to the Northern Ocean, 1769-1772. Toronto: Macmillan, 1958.
- Hemstock, R.A. "Industry and the Arctic Environment." The Tundra Environment, The Royal Society of Canada, Toronto and Buffalo: University of Toronto Press, 1970, pp. 26-31.
- Hills, G.A.; Love, D.; and Lacate, D.S. "Developing a better environment. Ecological Land-use planning in Ontario - a study of methodology in the development of regional plans." Ontario Economic Council, 1970.

Holdsworth, Gerald. "Taking the Measure of Mount Logan." Can. Geog. Journ. Vol. 90, No. 3, March 1975, pp. 28-33.

Honigmann, J.J., and Honigmann, I. "Eskimo Townsmen." Canadian Research Centre for Anthropology, University of Ottawa, 1965.

Innis, H.A. The Fur Trade in Canada - An Introduction to Canadian Economic History. Toronto: University of Toronto Press, 1956 and 1970.

_____. The Fur Trade in Canada - An Introduction to Canadian Economic History. New Haven: Yale University Press, 1962.

_____. "Settlement and Mining Frontier." Volume IX of Canadian Frontiers of Settlement, Toronto: Macmillan, 1936.

Irland, Lloyd C., and Vincent, J. Ross. "Citizen Participation in Decision Making - A Challenge for Public Land Managers." Journal of Range Management, 27(3), May 1974.

Irving, W.N. "Recent Early Man Research in the North." in Arctic Anthropology, Vol. VIII, No. 2, 1971.

Jeffrey, W.W., et al. "Towards Integrated Resource Management." Report of the Sub-committee on Multiple Use, National Committee on Forest Land, Ottawa: Queen's Printer for Canada, Cat. No. RE60-1570, 1970.

Jenkins, R.E., and Bedford, W.B. "The Use of Natural Areas to Establish Environmental Baselines." Biological Conservation, 5, 1973, pp. 168-174.

Jenness, Diamond. "Eskimo Administration. Vol. 2, Canada; Vol. 3, Labrador; and Vol. 5, Analysis and Reflections." Arctic Institute of North America Technical Papers Nos. 14, 16 and 21. Montreal, 1964, 1965 and 1968.

_____. The Indians of Canada. Ottawa: Queen's Printer, 1967.

Jennings, Jesse D. Prehistory of North America. New York: McGraw-Hill, 1968. 2nd ed. New York: McGraw-Hill, 1974.

Johnson, F., and Raup, H.M. "Investigations in the Southwest Yukon: Geobotanical and Archaeological Reconnaissance." Papers of the Peabody Foundation for Archaeology, Vol. 6, No. 1, 1964.

Johnson, V.W., and Barlowe, R. Land Problems and Policies. New York: McGraw-Hill Book Company, 1954.

Jones, W.T. "World Views: Their Nature and Their Function." Current Anthropology, 13, No. 1. Feb. 1972, pp. 79-109.

- Jurdant, M., et al. "Biophysical Land Classification in Canada."
Paper presented at the Fourth North American Forest Soils Conference, Université Laval, Québec, August, 1973.
- Kelso, M.M. "Range, Mineral, and Agricultural Policies." What's Ahead for Our Public Lands? Natural Resources Council of America, Washington, D.C., 1970.
- Kennedy, W.P.M. Essays in Constitutional Law. London: Oxford University Press, 1934.
- Kierans, Eric. Report on Natural Resources Policy in Manitoba. Government of Manitoba, February 1973.
- Kirwan, L.P. A History of Polar Exploration. Harmondsworth, Middlesex: Penguin Books Ltd., 1962.
- Kuo, Chun-Yan. A Study of Income Distribution in the Northwest Territories, in three volumes, Ottawa: Indian Affairs and Northern Development publications: November 1972, July 1973; February 1974.
- _____ The Effect of Education on Earnings in the Mackenzie District of Northern Canada. Ottawa: Indian Affairs and Northern Development publication, November 1972.
- Kuznets, Simon. Modern Economic Growth. New Haven and London: Yale University Press, 1966.
- Lacate, D.S. Guidelines for Biophysical Land Classification of Forest Lands and Associated Wildlands. Ottawa: Dept. of Fisheries and Forestry, Publication No. 1264, 1969.
- Lafond, André. Forests and Forestry in Quebec. H.R. MacMillan Lecture, University of British Columbia, in press, 1973.
- LaForest, G.V. Natural Resources and Public Property Under the Canadian Constitution. Toronto: University of Toronto Press, 1969.
- Larsen, Helge. "Trail Creek." Acta Arctica, Fasc. XV, Copenhagen, 1968a.
- _____ "The Eskimo Culture and Its Relationship to Northern Eurasia." Proceedings of the VIIIth International Congress of Anthropological and Ethnological Sciences, Vol. III, Tokyo and Kyoto, 1968b.
- Lavkulich, L.M., and Rutter, N.W. "Terrain Sensitivity and the Arctic Land Use Research Program in the Mackenzie Valley, N.W.T." Paper presented at the Fourth North American Forest Soils Conference, Université Laval. Quebec, August 1973.

- Leechman, J.D. Native Tribes of Canada. Toronto: Gage, 1956.
- Leopold, A. Starker. "Quantitative and Qualitative Values in Wildlife Management." Natural Resources: Quality and Quantity. Edited by S.V. Ciriacy-Wantrup and J.J. Parsons. Berkeley and Los Angeles: University of California Press, 1967.
- Leopold, L.B., et al. "A Procedure For Evaluating Environmental Impact." Washington, D.C.: United States Geological Survey Circular 645, 1971.
- Lepawsky, Albert. "The Quest for Quality in the Administration of Resources." Natural Resources: Quality and Quantity. Edited by S.V. Ciriacy-Wantrup and J.J. Parsons. Berkeley and Los Angeles: University of California Press, 1967.
- Lingard, C. Cecil. Territorial Government in Canada - The Autonomy Question in the Old North-West Territories. Toronto: The University of Toronto Press, 1946.
- Lloyd, R.D. "Economics of Multiple Use." Paper presented at Conference on Multiple Use of Southern Forests, Pine Mountain, Georgia, November 1969, pp. 45-54.
- Lowenthal, David. "Research in Environmental Perception and Behaviour: Perspectives on Current Problems." Environment and Behaviour, 4, No. 3, September 1972, pp. 333-342.
- Lysyk, Kenneth. "Approaches to Settlement of Indian Title Claims: The Alaskan Model." University of British Columbia Law Review, Vol. 3, No. 2, 1973, pp. 321-342.
- MacBain, S. Mackenzie District Manpower Survey, Ottawa: Dept. Indian and Northern Affairs publication, 1971.
- Mackay, J.R. "The Mackenzie Delta Area, N.W.T." Geographical Branch Memoir 8, Ottawa: Dept. of Mines and Technical Surveys of Canada, Queen's Printer, 1963.
- _____. "The Origin of Massive Icy Beds in Permafrost, Western Arctic Coast, Canada." Can. J. Earth Sci. 4, 1971, pp. 397-422.
- _____. "Problems in the Origin of Massive Icy Beds, Western Arctic, Canada." Second International Permafrost Conference, Yakutsk, U.S.S.R., North American Contribution, National Academy of Sciences, Washington, D.C., 1973.
- _____. "Some Aspects of Permafrost Growth." Ottawa: Geological Survey of Canada, paper 73-1A, 1973.

Mackay, J.R. "The World of Underground Ice." Ann. Assoc. Am. Geogr. 62, 1972.

Mackay, J.R., and Black, R.F. "Origin, Composition and Structure of Perennially Frozen Ground and Ground Ice: A Review." Second International Permafrost Conference, Yakutsk, U.S.S.R., North American Contribution, National Academy of Sciences, Washington, D.C., 1973.

Mackenzie, J. "Public Participation - Manitoba." Canadian North-lands Data Needs Seminar, National Resource Institute, The University of Manitoba, 1974.

MacNeish, R.S. Early Man in America. San Francisco: W.H. Freeman and Company, 1972.

_____ "Investigations in Southwest Yukon." R.S. Peabody Foundation for Archaeology Papers, Vol. 6, No. 2, 1964, pp. 201-488.

_____ "Men Out of Asia, as Seen from the Northwest Yukon." Anthropological Papers of the University of Alaska, Vol. 7, No. 2, 1959, pp. 41-70.

Madill, R.J. "Approaches to Multiple Use Planning." The Forestry Chronicle, December, 1973, pp. 257-260.

Martin, Chester. Dominion Lands Policy. Edited by Lewis H. Thomas. The Carleton Library No. 69, McClelland and Stewart Limited, 1973.

_____ The Natural Resources Question - The Historical Basis of Provincial Claims. King's Printer for the Province of Manitoba, 1920.

Marx, Leo. "Pastoral Ideals and City Troubles." The Quality of Man's Environment, Smithsonian Institution Press, 1968.

Massam, Bryan, H. An Evaluation of Geo-Information Systems with Special Reference to the Canadian Geographical Information System: The Users' Viewpoint. Montreal: Urban Planning, McGill University, 1975.

Maxwell, Judith. Energy From the Arctic: Facts and Issues. Canadian-American Committee sponsored by C.D. Howe Research Institute (Canada), National Planning Association (U.S.A.), 1973.

McDougall, Ian A., et al. "Economic Development with Environmental Security." a brief to the Canadian Council of Resources and Environment Ministers, 1972.

McFee, William. Martin Frobisher. London: John Lane the Bodley Head Ltd., 1928.

McGhee, Robert. "The People of Arctic North America." Arctic and Alpine Regions, Edited by J. Ives and R. Barry. Boulder, Colorado: Institute for Arctic and Alpine Research, University of Colorado, 1972.

Summary of Northwest Territories Prehistory. Archaeology Division, National Museum of Man, Ottawa, 1970.

Mill, John Stuart. Principles of Political Economy. London: Longmans, Green, Reader and Dyer, 1871.

Millar, James F.V. Archaeology of Fisherman Lake, Western District of Mackenzie, N.W.T. Calgary. Doctoral Dissertation, University of Calgary, 1969.

Mirsky, Jeannette. To The Arctic: The Arctic Exploration to 1937. London: Allan Wingate, 1949.

Moir, William H. "Natural Areas." Science, Vol. 177, August 1972, pp. 396-400.

Mooney, J. "Aboriginal Population of America." Smith Misc. Coll. Vol. 80, No. 7, Washington, 1928.

Morrison, David R. The Politics of the Yukon Territory 1898-1909. Toronto: University of Toronto Press, 1968.

Morrow, Mr. Justice W.G., Reasons for Judgement in the Matter of an Application by Chief Francis Paulette et al. to lodge a Caveat with the Registrar of Titles of the Land Titles Office for the Northwest Territories, Yellowknife, N.W.T., Sept. 6, 1973.

Morton, Arthur S. History of Prairie Settlement. Toronto: The Macmillan Company of Canada Limited, 1938.

Munro, J.A. Review of Canadian Forest Regulation Methods and Management Objectives. unpublished paper Faculty of Forestry, University of British Columbia, Vancouver, March 1971.

Murray, A.H. Journal of the Yukon 1847-48. Edited by L.J. Burpee, Ottawa: Publications of the Canadian Archives, No. 4, 1910.

Naysmith, J.K. Canada North-Man and the Land. Ottawa: Information Canada Cat. No. R72-6770, 1971.

"The Future Value of Canada's Northern Forests." The Forestry Chronicle, Vol. 46, No. 4, August 1970.

"The Impact of Technology Upon Native People and Their Traditional Pursuits." paper presented at 7th World Forestry Congress, Buenos Aires, 1972.

- Naysmith, J.K. "The Management of Polar Lands." paper presented at Twelfth Technical Meeting, IUCN, Banff, Canada, September 1972. Morges, Switzerland: International Union for Conservation of Nature and Natural Resources, 1973.
-
- _____ Toward A Northern Balance. Ottawa: Information Canada, Cat. No. R72-11373, 1973.
- Nelson, J.G.; Scace, R.C.; and Kouri, R., eds. Canadian Public Land Use in Perspective. Ottawa: Social Science Research Council of Canada, 1973.
- Ogilvie, Wm. Information Respecting the Yukon District. Canadian Department of the Interior, Ottawa, Government Printing Bureau, 1897.
-
- _____ The Yukon Territory. London: Downey & Company, 1898.
- Oliver, E.H. The Canadian North-West, Its Early Development and Legislative Records. Authority of Secretary of State under direction of Archivist. Ottawa: Government Printing Bureau, 1914-15.
- Osgood, Cornelius. "The Distribution of the Northern Athapaskan Indians." Yale University Publications in Anthropology, No. 7, New Haven, 1936.
- Palmer, John. Measurement of the Value of Economic Activity in the North. Department of Indian and Northern Affairs, April 1974.
-
- _____ Social Accounts for the North. Interim papers nos. 1, 2 and 3. Department of Indian and Northern Affairs, April 1973.
- Peake, R.W., and Walker, P.H. Yukon Agriculture: A Policy Proposal. prepared for the Yukon Territorial Government, February 1975.
- Pearse, P.H. "Crown Charges for Early Timber Rights." First report of the Task Force on Crown Timber Disposal, British Columbia Forest Service, Victoria, B.C., February 1974.
- Peterson, E.B. A National System of Ecological Reserves for Canada. unpublished paper prepared for Canadian Department of the Environment, October 1974.
-
- _____ "The Pipeline Problem in Review." Symposium on Energy Resources. Edited by K.J. Laidler. Ottawa: Royal Society of Canada, 1973.
- Peterson, William. "On Some Meanings in Planning." Natural Resources: Quality and Quantity. Edited by S.V. Ciriacy-Wantrup and James J. Parsons. Berkeley and Los Angeles: University of California Press, 1967.
- Phillips, R.A.J. Canada's North. Toronto: The Macmillan Company of Canada Limited, 1967.

- Pimlott, D.H.; Vincent, K.M.; and McKnight, C.E., eds. Arctic Alter-natives. Ottawa: Canadian Arctic Resources Committee, 1973.
- Prest, V.K. "Retreat of Wisconsin and Recent Ice in North America." Geological Survey of Canada Map, 1257A, 1968.
- Prest, V.K.; Grant, D.R.; Rampton, V.N. "Glacial Map of Canada." Geological Survey of Canada Map, 1253A, 1967.
- Pruitt, Wm. O., Jr. "Tundra Animals: What Is Their Future." The Tundra Environment, The Royal Society of Canada. Toronto and Buffalo: University of Toronto Press, 1970.
- Public Land Law Review Commission. Report of the Commission. One Third of Our Nation's Land. Washington, D.C., June 1970.
- Rampton, V.N. Terrain Evaluation With Respect to Pipeline Construc-tion, Mackenzie Transportation Corridor-Latitude 68° N to Coast. Ottawa: Information Canada Cat. No. R72-9273, March 1974.
- Rasmussen, Tor F. "The Introduction of a New Planning Ideology." Ambio, Royal Swedish Academy of Sciences/Universitetsforlaget, Vol. 11, Nos. 1-2, 1973.
- Renne, Roland R. Land Economics. New York and London: Harper and Brothers, 1947.
- Rich, E.E. The History of the Hudson's Bay Company 1670-1870. Vols. I and II, London: The Hudson's Bay Record Society, 1959.
- _____. Hudson's Bay Company. Vols. I, II and III. Toronto: McClelland and Stewart Limited, 1960.
- Riddle, John M. Tiberius Gracchus, Destroyer or Reformer of the Republic? Lexington, Mass.: D.C. Heath and Company, 1970.
- Romaine, M.J. "The Opportunity for an Integrated Approach to Inven-torying Base-line Data." Paper presented at Canadian Northlands Data Needs Seminar. Winnipeg: Natural Resource Institute, The University of Manitoba, 1974, pp. 160-177.
- Rohmer, Richard. The Arctic Imperative. Toronto: McClelland and Stewart Limited, 1973.
- _____. The Green North, Mid-Canada. Toronto: Maclean Hunter Limited, 1970.
- Ross, J.H. "PLUS (Planning Land Use) System." Paper presented at Technical Workshop to develop an integrated approach to base

- data inventories for Canada's Northlands, Toronto, April 1974. Ottawa: Lands Directorate, Environment Canada, 1974.
- Rowe, J.S. "Facts of Ecological Life." Forestry Chronicle, Vol. 49, No. 6, Suppl., Dec. 1973, pp. 299-300.
- _____. Forest Regions of Canada. Ottawa: Information Canada, Cat. No. Fo47-1300, 1972.
- _____. "Inventorying for Environmental Management." Paper presented at Technical Workshop 'to develop an integrated approach to base data inventories for Canada's Northlands,' Toronto, April 1974. Ottawa: Lands Directorate, Environment Canada, 1974.
- Ruggles, R.I. "The West of Canada in 1763: Imagination and Reality." Canadian Geographer, XV, 4, 1971.
- Salisbury, Richard F., et al. Development and James Bay: Social Implications of the Proposals for the Hydroelectric Scheme. Report prepared for James Bay Development Corporation. Montreal: McGill University, Department of Anthropology, August 1972.
- Schickele, Rainer. "Objectives in Land Policy." Land Problems and Policies. Edited by John F. Timmons and William G. Murray. Ames: Iowa State College Press, 1950.
- Schultz, Arnold M. "The Ecosystem as a Conceptual Tool in the Management of Natural Resources." Natural Resources: Quality and Quantity, Berkeley and Los Angeles, 1967, pp. 139-161.
- Searle, David. Provincial Status for the North. An address to the Arctic Petroleum Operators' Association and Canadian Petroleum Association, Calgary, Alberta. October, 1973.
- Sharpe, Lois. "Citizens' Role in Land Use Planning." National Land Use Policy, Ankeny, Iowa: Soil Conservation Society of America, 1973, pp. 127-132.
- Smith, Adam. The Wealth of Nations. New York: The Modern Library, Random House, Inc., 1937.
- Smith, J.H.G. Investment Implications of Sustained Yield Theories and Criteria for Improving Forest Land Management. Univ. of British Columbia, Faculty of Forestry, 1974, 37 p.
- _____. Problems Involved in Harmonization of Economic Objectives with Technical, Environmental and Social Concerns About Forest Development. Univ. of British Columbia, Faculty of Forestry, 1973, 17 p.

Smith, J.H.G., and Haley, D. Canadian Forest Resource Managers Must Learn How to Expand and Modulate Yields in a High Quality Environment. Univ. of British Columbia, Faculty of Forestry, 1970, 11 p.

Implications of Current Concerns for Improved Forest Environments. Jour. For. 70(4), 1972, 4 p.

Smith, Norman. Maori Land Law. Wellington: A.H. and A.W. Reed, 1960.

Solecki, Ralph. "How Man Came to North America." Early Man in America. Edited by Richard S. MacNeish. San Francisco: W.H. Freeman and Company, 1972, pp. 19-23.

Stager, J.K. "Fort Anderson: The First Post For Trade in the Western Arctic." Geographical Bulletin, Vol. 9, No. 1, 1967, pp. 45-56.

"Fur Trading Posts in the Mackenzie Region Up To 1850." Occasional Papers in Geography, Number 3. The Canadian Association of Geographers, British Columbia Division, June 1962, pp. 37-45.

Old Crow, Yukon Territory and the Proposed Arctic Gas Pipeline. Ottawa: Information Canada, Cat. No. R72-139/1974. 233 p.

Steele, Harwood. M.C. Policing the Arctic. London: Jarrolds Publishers London Limited, 1936.

Stock, Eugene. History of the Church Missionary Society, Its Environment, Its Men and Its Work. Vols. 1, 2 and 3. London: London Church Missionary Society, 1899. Vol. 4, 1916.

Stoddard, Charles H. "Regional and Local Land Use Planning." What's Ahead For Our Public Lands? Washington, D.C.: Natural Resources Council of America, 1970, pp. 139-148.

Stoltenberg, Carl H. "Public Timber and Public Benefits." What's Ahead For Our Public Lands? Washington, D.C.: Natural Resources Council of America, 1970, pp. 13-22.

Strabo. The Geography of Strabo. English translation by H.L. Jones. London: Wm. Heinemann; New York: G.P. Putnam's Sons, 1917.

Strang, Roy. "The Arctic Land Use Research Program." north nord, Vol. XXII, No. 2, Mar-Apr. 1975, pp. 2-5.

Tarlock, A.D. "Land Use Choice: National Prerogative vs. International Policy." Natural Resources Journal, Vol. 13, No. 2, Apr. 1973, pp. 343-356.

- Taylor, W.E., Jr. "An Archaeological Perspective on Eskimo Economy." Antiquity, Vol. 40, 1966, pp. 114-120.
-
- "An Archaeological Survey Between Cape Parry and Cambridge Bay N.W.T. Canada in 1963." Archaeological Survey, Paper No. 1/Mercury Series, Ottawa: National Museum of Man, 1972.
-
- "Eskimo Prehistory of the North and East Shores." Science, History and Hudson Bay, Vol. 1. Edited by C.S. Beals. Ottawa: Dept. of Energy, Mines and Resources, 1968, pp. 1-26.
-
- "First Men in the Arctic: What We Know of Them." Science Forum, 8, Vol. 2, No. 2, April 1969.
-
- "The Fragments of Eskimo Prehistory." Canada's Changing North, Edited by William C. Wonders. Toronto: McClelland and Stewart Limited, 1971, pp. 160-169.
-
- "Hypothesis on Origin of Canadian Thule Culture." American Antiquity 28(4), 1963.
- Thie, Jean. "Remote Sensing for Northern Inventories and Environmental Monitoring." Paper presented at Technical Workshop to develop an integrated approach to base data inventories for Canada's North-lands, Toronto, April 1974. Ottawa: Lands Directorate, Environment Canada, 1974.
- Thirgood, J. Vincent. "Forest Resources Research Policies: U.S.A. and U.K." National Conference on Forest Resources Problems, Science Council of Canada, June 1969, 13. p.
- Thompson, H.A. "The Climate of the Canadian Arctic." Canada Year Book, Ottawa: Queen's Printer, 1968, pp. 55-74.
- Tuan, Yi-Fu. Topophilia - A Study of Environmental Perception, Attitudes, and Values. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1974.
- Tysdal, Rod. Multiple Use in North America: Its Meaning and Development. Master's Thesis. University of British Columbia, Faculty of Forestry, March 1973.
- U.S. Department of Agriculture. National Handbook for Resource Conservation Planning. Soil Conservation Service, RCPH Notice No. 1, 7-1-70, 1970.
- Usher, Peter J. The Bankslanders - Vol. 1: History. Ottawa: Dept. Indian and Northern Affairs, NSRG 71.1, 1970.
-
- "The Significance of the Land to Native Northerners." Paper presented at 1973 National Convention of Canadian Society of Exploration Geophysicists. Calgary, Alta., Apr. 1973.

- Van Dyne, G.M. ed. The Ecosystem Concept in Natural Resource Management. New York: Academia Press, 1969.
- Van Stone, James W. "Changing Patterns of Indians Trapping in the Canadian Subarctic." Arctic, Vol. XVI, No. 3, Sept. 1963.
- Vlasin, R.D. "National Economic Considerations in Land Use." National Land Use Policy, Ankeny, Iowa: Soil Conservation Society of America, 1973, pp. 43-54.
- Wah-shee, James J. A Land Settlement- What Does It Mean? Presented to a conference. "Delta Gas: Now or Later?" sponsored by the Canadian Arctic Resources Committee, Ottawa, May 1974.
- Watkins, Mel. "Resources and Underdevelopment." Canada Ltd. The Political Economy of Dependency. Edited by Robert M. Laxer. Toronto: McClelland and Stewart Limited, 1973, pp. 107-126.
- Watt, K.E.F. Ecology and Resource Management - A Quantitative Approach. New York: McGraw-Hill, 1968.
- Weyer, E.M. The Eskimos, Their Environment and Folkways. London: Archon Books, 1969.
- Wilmeth, Roscoe. "Archaeological Resources of the Canadian North." Arctic Alternatives. Edited by: D.H. Pimlott, K.M. Vincent and C.E. McKnight, Canadian Arctic Resources Committee, 1973, pp. 160-167.
-
- "Canadian Archaeological Radiocarbon Dates." Bulletin of the National Museums of Canada, No. 232, 1969, pp. 68-127.
- Wilson, Clifford. Campbell of the Yukon. Toronto: Macmillan of Canada, 1970.
- Wolforth, John. The Evolution and Economy of the Delta Community. Ottawa: Dept. of Indian and Northern Affairs, MDRP 11, 1971.
- Wonders, W.C. ed. Canada's Changing North. Toronto/Montreal: McClelland and Stewart, 1971.
- Wormington, H.M. "Comments on Early Man in North America, 1960-1970." Arctic Anthropology, Vol. VIII, No. 2, 1971, pp. 83-91.
- Wright, J.V. "Current Research: Boreal Forest." American Antiquity, Vol. 35, No. 2, 1970.
- Yates, A.B. Canadian Arctic Oil and Gas Resources Regulatory Framework. Ottawa: Dept. Indian and Northern Affairs, May 1973.

"The Yukon Today - A Reference Paper." Ottawa: Dept. Indian and Northern Affairs, Cat. No. R29-7268, 1968.

Zaslow, Morris. The Opening of the Canadian North 1870-1914. Toronto/Montreal. McClelland and Stewart Limited, 1971.

Zivnuska, John A. "The Multiple Problems of Multiple Use." Journal of Forestry, 59, 1961, pp. 555-560.

APPENDIX A

Missions Established

Although Moravian missionaries were active with the Eskimos of Labrador as early as 1752⁽¹⁾ it was more than a century later when the first permanent mission was established in what is now the Yukon and Northwest Territories.

In 1820 the Reverend John West, a member of the Church Missionary Society, England, was appointed by the Hudson's Bay Company, chaplain to its settlement on the Red River south of Lake Winnipeg. There he established a school for Indian children and the Red River Settlement became the headquarters of the Church Missionary Society's North-West Canada Mission (Stock 1899:vol I:246). From its founding in 1822 the North-West Canada Mission⁽²⁾ expanded northward and westward following the Hudson's Bay posts.⁽³⁾

In 1849 David Anderson was consecrated first Bishop of Rupert's Land and arrived in Red River in October of that year. Encouraged by reports of Anderson the Church Missionary Society sent several men from England as lay schoolmasters to reinforce the Mission at Red River.

-
- (1) On July 31, 1752 John C. Erhardt and four other Moravian missionaries landed on the Labrador coast at about lat. 55°10'N (Nisbet's Harbour) where they built a house and traded with the Eskimos, leaving there in the fall of the same year (Cooke and Holland 1971:516). Permanent Moravian missions were established in Labrador at Nain 1770, Okkak 1775 and Hopedale 1781. Each mission contained a dwelling, church, trading store and workshop; around this nucleus the migratory Eskimos built wooden houses for the winter months (Jenness 1964:10).
- (2) It was originally called the North-West American Mission.
- (3) Three members of Sir John Richardson's expedition in search of Franklin, while wintering at Cumberland House in 1847, worked on the construction of the church and furnishings (Boon 1962:62).

W.W. Kirkby was one of these men and after spending seven years at Red River he proceeded to Fort Simpson where, in 1859, he established the first permanent Anglican mission in the Northwest Territories (Stock 1899:vol I:328).

In 1858 Archdeacon Hunter had travelled with a Hudson's Bay Company brigade from Red River to Fort Simpson and remained in the Mackenzie Valley for nearly a year⁽⁴⁾ visiting the Company's posts at Fort Liard, Fort Norman and Fort Good Hope.⁽⁵⁾ The following summer he returned to Red River, meeting Kirkby en route.

The first Roman Catholic missionary to journey to the Mackenzie appears to be Father H. Faraud, O.M.I., who visited Fort Resolution from Fort Chipewyan in 1852. While there he built 'with his own hands' a mission house on an island in Great Slave Lake about three miles of Fort Resolution (Duchaussois 1923:201).

In 1858 Father Henri Grollier, O.M.I. established St. Joseph's Mission at Fort Resolution, the Mission of Immaculate Heart of Mary at Grande Isle (later moved to Fort Providence), and the Mission of Sacred Heart at Fort Simpson. The following year he established additional

(4) There is evidence however that the first missionaries in the Mackenzie River basin were James and John Hope, two of the first pupils of the Church Missionary School established in the Red River settlement in 1821 (Boon 1962:204).

(5) When Mgr. Tache, Bishop of St. Boniface, paid his first visit to London, England in 1856, Lord Colville, on behalf of the Hudson's Bay Company, invited him to form a Roman Catholic mission at Fort Good Hope (Duchaussois 1923:267). An R.C. mission was established there in 1859.

missions at Fort Rae,⁽⁶⁾ Fort Norman and Fort Good Hope and at Fort MacPherson in 1860.

In 1862 Rev. Kirkby and another Anglican clergyman, Robert McDonald⁽⁷⁾ travelled from Fort Simpson to Fort Yukon via the Mackenzie, Peel and Porcupine Rivers. McDonald remained at Fort Yukon until 1871 at which time he moved to Fort McPherson where he remained for 33 years. During this time he translated, with the assistance of his wife, one of his converts whom he married in 1877, the Bible, Prayer Book and Hymnal into the Tukudh dialect.

In nearly all cases the missions were established near active trading posts. However, in the case of Fort Providence it was the reverse. In August 1861 Mgr. Grandin chose a new location for the mission which had

(6) The speed with which missions were established down the Mackenzie Valley in the latter half of the 19th century was partly due to the element of competition existing between the Anglican and Roman Catholic churches, e.g. Father Grollier wrote, "I came to Fort Rae from Fort Resolution. There are nearly 1200 Indians about this post. I came as soon as I possibly could, because it was reported that Archdeacon Hunter would send a Protestant minister here..." Similarly Father Grollier is reported to have said at a meeting in Fort Simpson August 26, 1860 "we shall save the Fort Liard Indians for the Church". On September 4, 1860 Father Gascon arrived in Fort Liard three days ahead of the Anglican minister (Duchaussois 1923:198-204). However, there were many instances of co-operation as well, e.g. in June 1862 Father Sequin (who had taken over from Grollier) accompanied Reverend Kirkby to Lapierre House, where he founded a 'little' R.C. mission. In the fall of the same year Father Sequin accompanied Robert McDonald to Fort Yukon from Fort Good Hope.

(7) McDonald, whose father was a Hudson's Bay Company employee and homesteader in the Red River Valley and his mother a daughter of an officer of the Hudson's Bay Co., was educated at the Red River Academy and took theological training from Bishop Anderson who ordained him in 1852. His son, Neil McDonald, a respected member of the Yukon community of Old Crow, still resides there.

been established on Grande Isle in Great Slave Lake (p. 50). The new site, which eventually included an orphanage and a convent, he named 'Providence Mission'. It eventually attracted so many Indians that the Hudson's Bay Company established a post there, 'Fort Providence'. By November 1862 the chapel had been constructed and during the winter of 1863-64 an orphanage and two storey convent were completed. In 1869 there were 35 children in the orphanage-school, which was by then operated by the Grey Nuns, who were unable to accept more children due to limited food supplies. The shortage of food was a problem common to all missions in the north. Reverend W.C. Bompas⁽⁸⁾ of the Anglican Church noted that his major concern during his first ten years in the Mackenzie Valley was famine and stated "a mission farm in connection with a mission seems almost a necessity...the wild animals of the woods are ceasing to yield even a precarious subsistence" (Boon 1962:214).⁽⁹⁾

(8) Born in London, England, January 20, 1834, he arrived in Fort Simpson in 1865. During the 41 years he lived and worked in the Canadian north he travelled extensively throughout the Mackenzie District and the Yukon Territory. In 1874 he was consecrated as first Bishop of Athabasca (an area which covered the current Dioceses of Athabasca, Yukon and Mackenzie River). In 1884 the southern portion of Athabasca was established as the Diocese of Athabasca; and the Mackenzie area and what is now the Yukon formed a new Diocese, named Mackenzie River, with Bompas as its Bishop. Again a division took place in 1891 with the formation of the Diocese of the Yukon. Bompas who always chose the more remote portion of a division became its Bishop (Bishop Henry G. Cook, Yellowknife, pers. comm., 1974).

(9) Several mission farms have operated in the north, for example, 'St. Bruno's Farm', established by Bishop Breynat near Fort Smith, N.W.T., in 1911 (Duchaussois 1923:205-206). During the period 1953 to 1959 while Father Fumoleau was stationed in Fort Good Hope the mission garden there produced as much as 300 sacks of potatoes annually which were shipped with the Fort Good Hope children to the residential school in Aklavik (pers. comm. F. Fumoleau 1974).

Emile Petitot, O.M.I., a Catholic priest who visited the Mackenzie Delta in 1868, was the first missionary to reach the Arctic coast of the mainland (Jenness 1964:15). Between 1864 and 1872, while stationed at Fort Good Hope, he travelled throughout the Mackenzie District mapping much of the country and collecting information on the language and customs of the native people including the compilation of a grammar of the dialect of the Mackenzie Delta Eskimo.

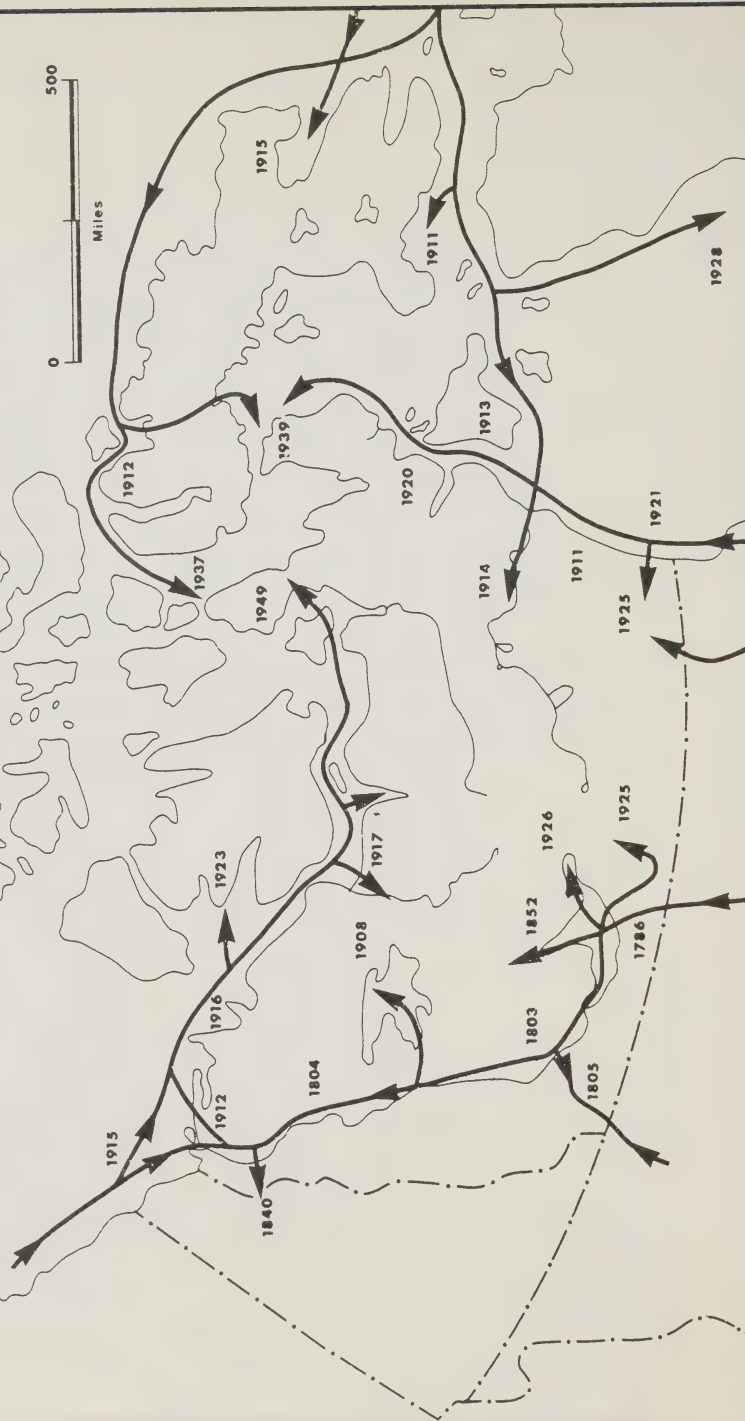
In 1876 Rev. Edmund James Peck arrived in the eastern Arctic aboard a Hudson's Bay Company supply ship to carry out missionary work among the Eskimo. Between 1876 and 1884 he travelled between Moose Factory, Little Whale River and Great Whale River and made three unsuccessful attempts to cross overland to Ungava Bay. During this period he translated parts of the New Testament into syllabic script (Pers. Comm. Cook:1974).⁽¹⁰⁾

(10) Peck used a syllabic system invented about 1839 by James Evans, a Methodist missionary, to facilitate his work among the Cree Indians of northern Ontario and Quebec (Jenness 1964:16). The Eskimo of the Mackenzie Delta learned the use of English characters for writing, partially from Alaskan natives who arrived during the whaling era, from traders who followed the whalers, and from Anglican missionaries such as I.O. Stringer, who resided at Herschel Island between 1896 and 1901 and translated parts of the New Testament into Eskimo.

Map 12

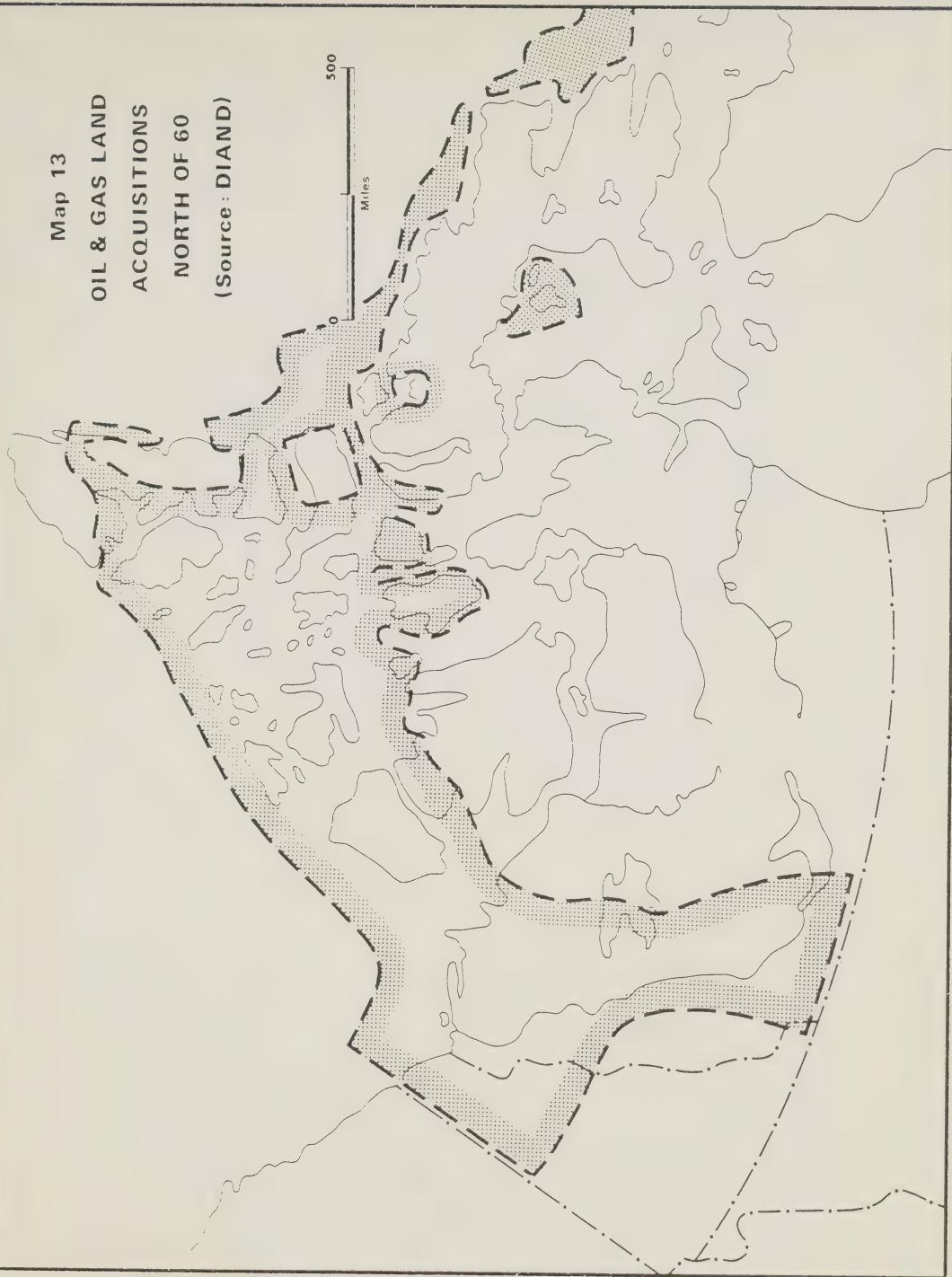
Routes and Dates of
Development of Fur
Trade In The Northwest
Territories as Indicated
By The Establishment
of Permanent Posts
(after Usher:1971)

0 500
Miles

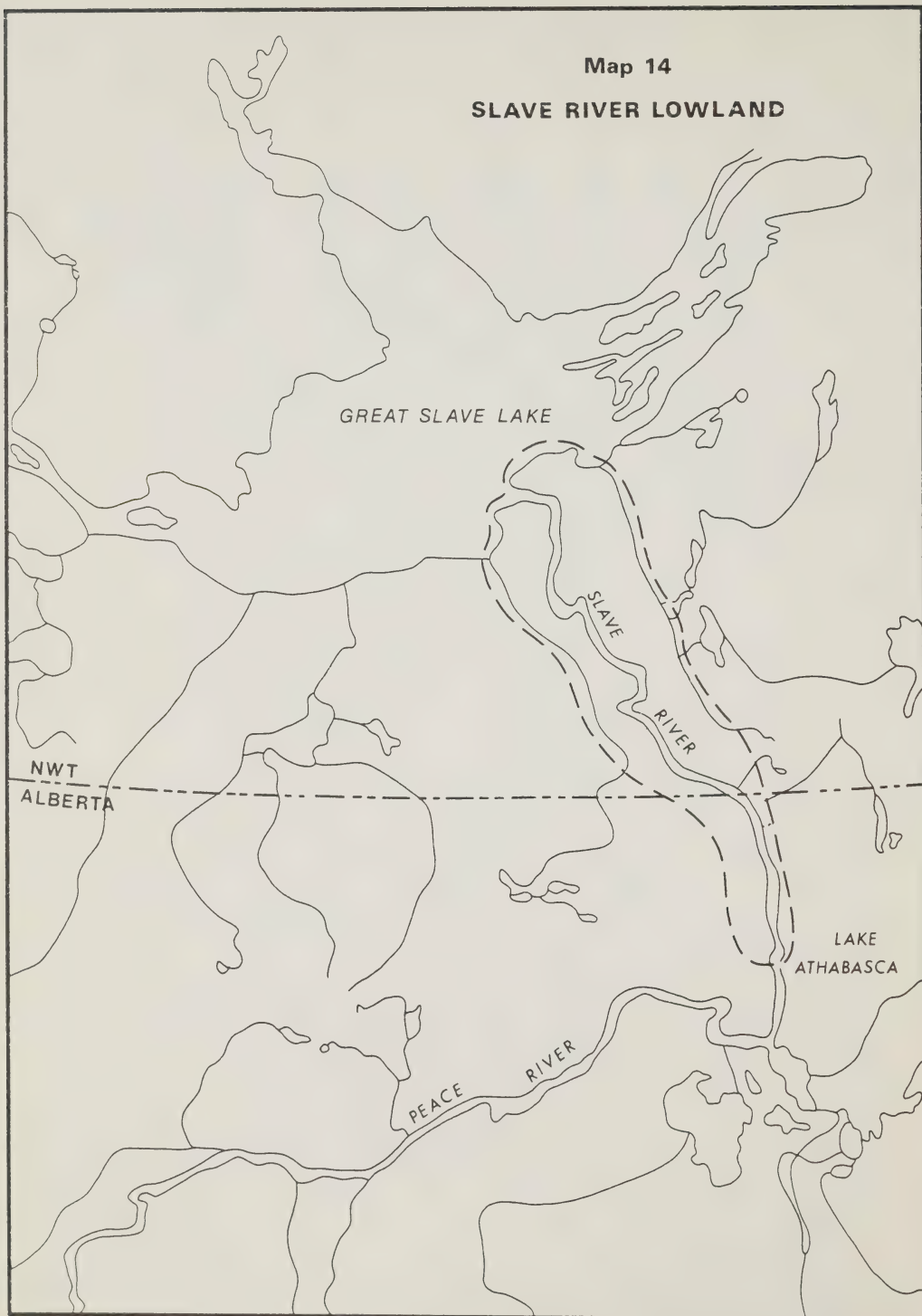


Map 13
OIL & GAS LAND
ACQUISITIONS
NORTH OF 60
(Source: DIAND)

500
Miles



Map 14
SLAVE RIVER LOWLAND

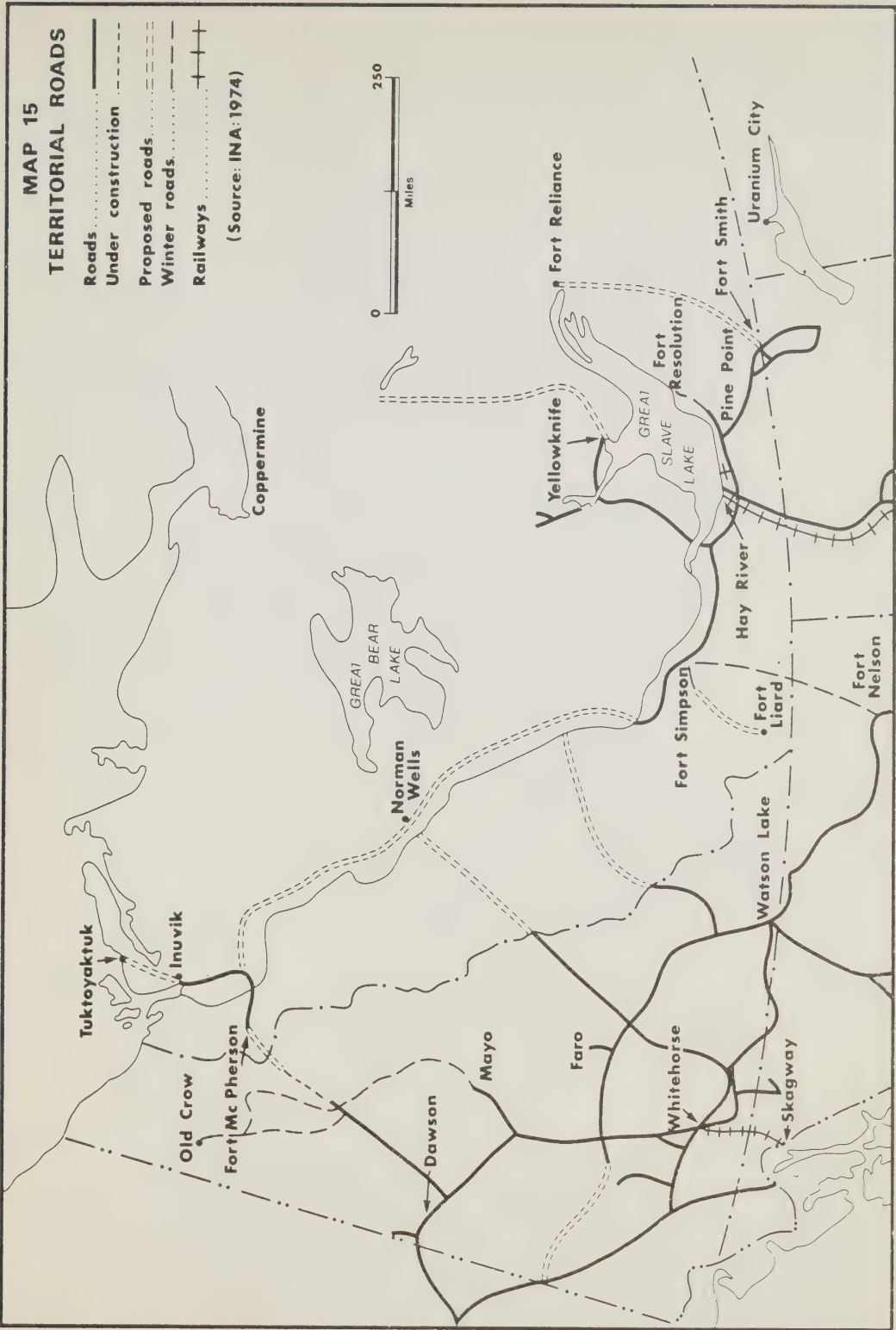


MAP 15

TERRITORIAL ROADS

- Roads.....
- Under construction.....
- Proposed roads.....
- Winter roads.....
- Railways.....

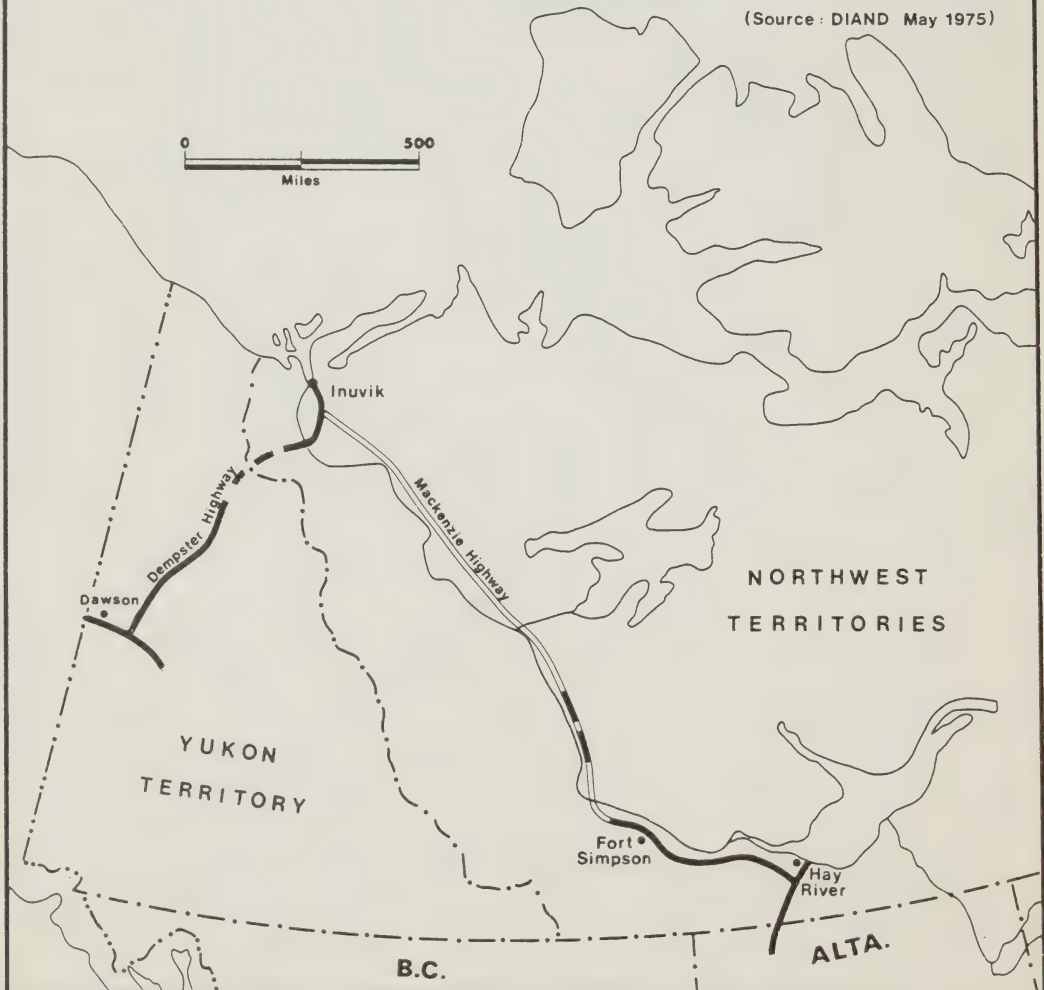
(Source: INA: 1974)



Map 16 DEMPSTER & MACKENZIE HIGHWAYS

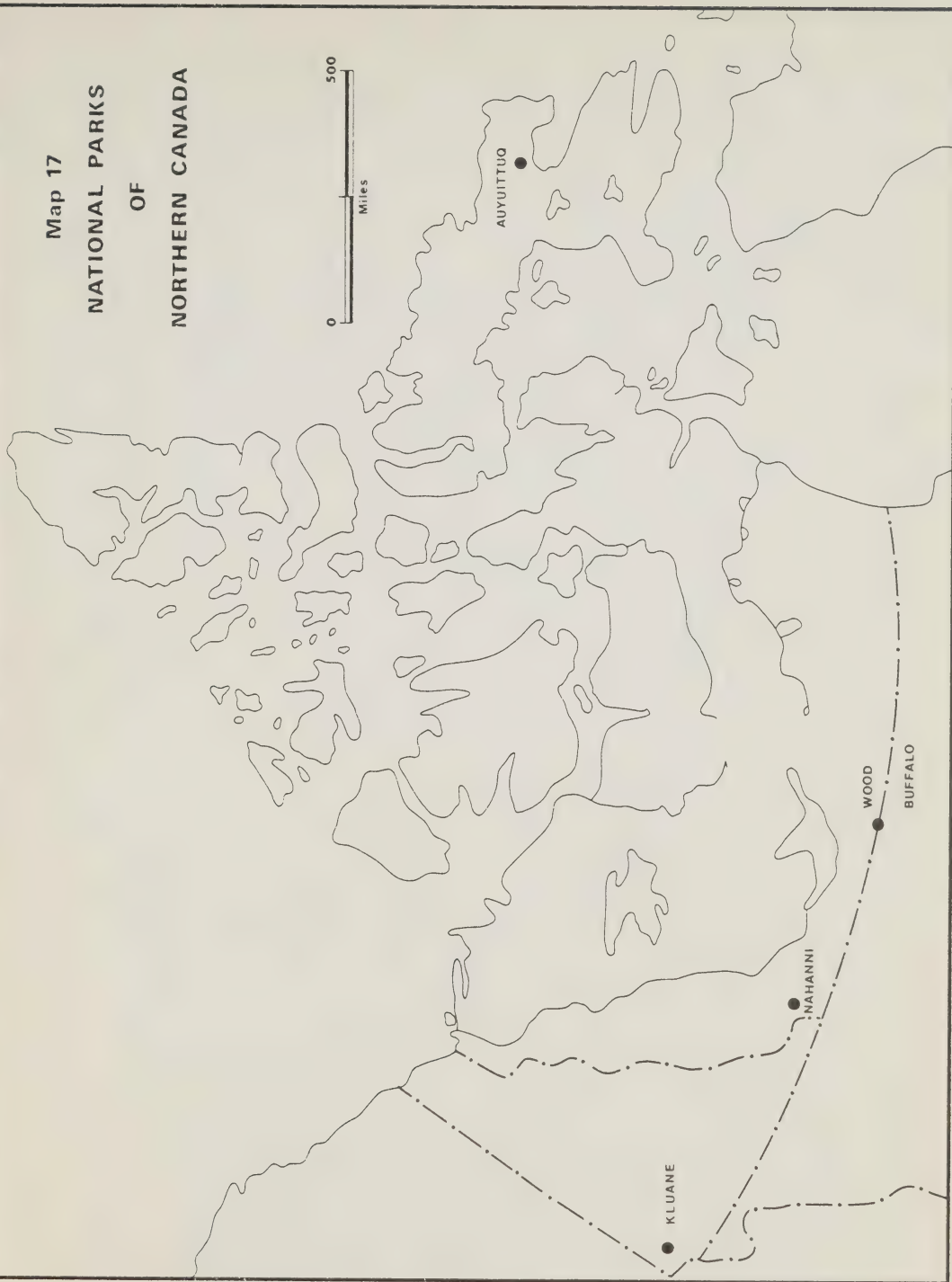
- Completed
- Under Construction
- Proposed

(Source: DIAND May 1975)

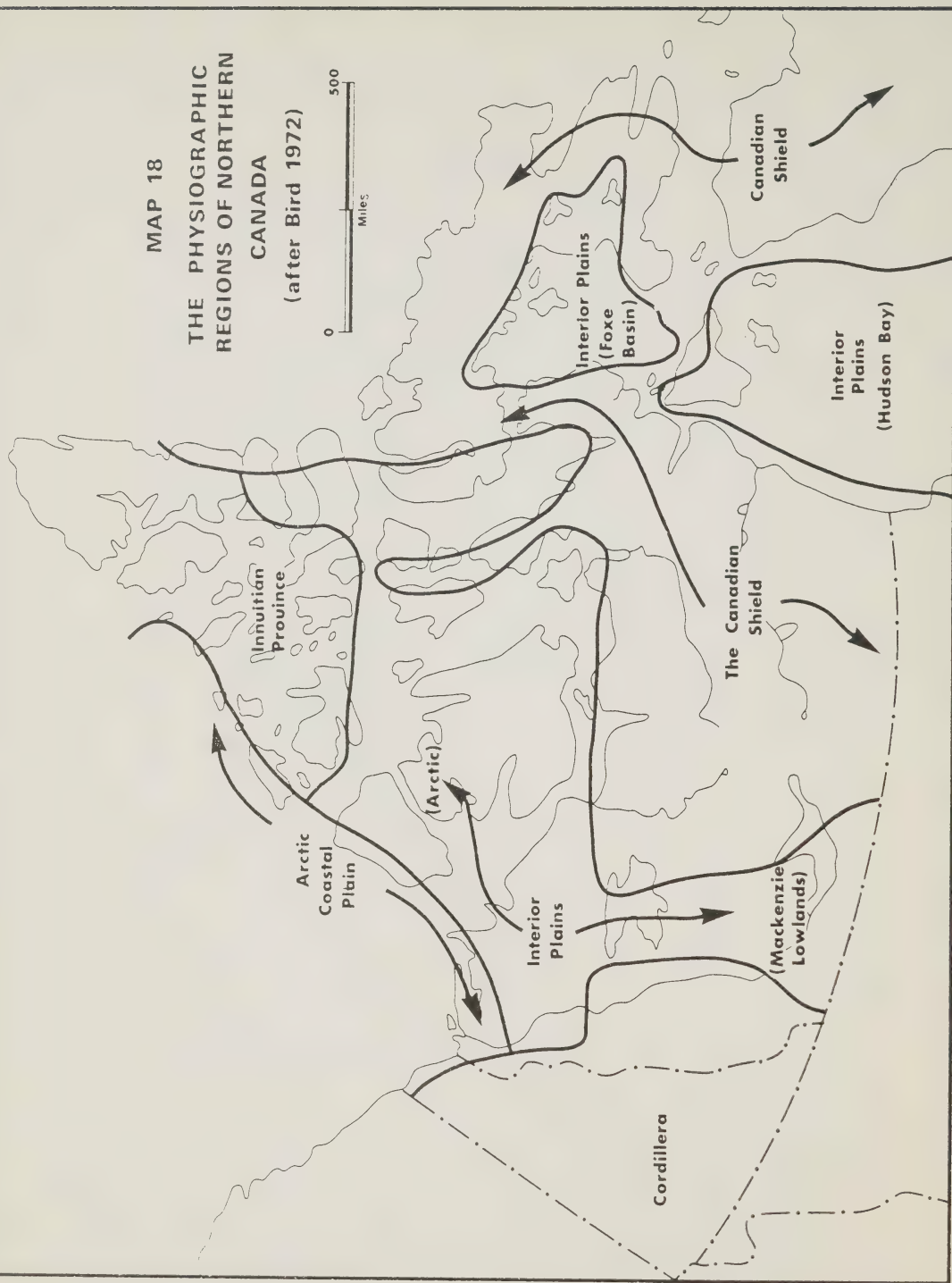


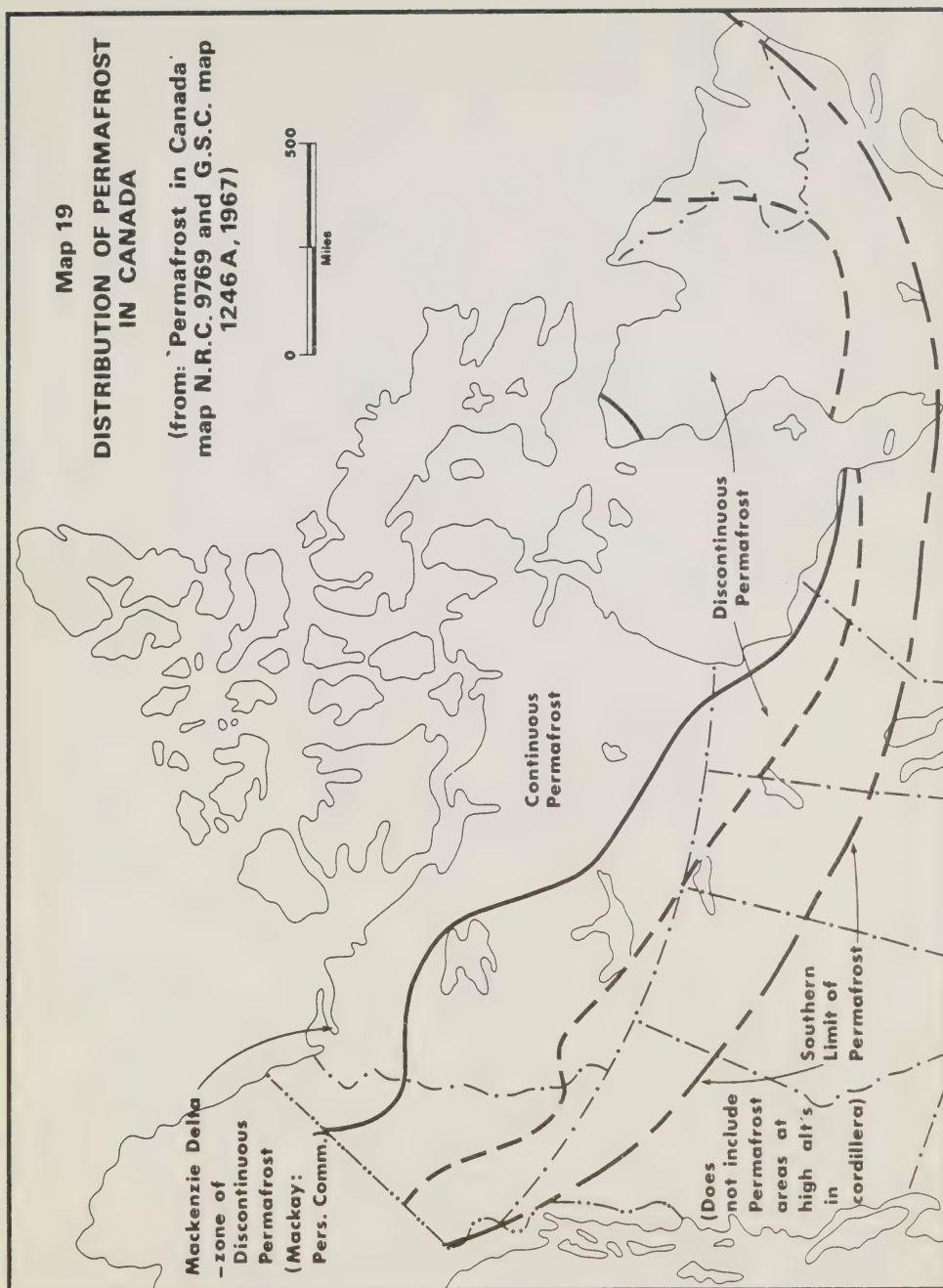
Map 17
NATIONAL PARKS
OF
NORTHERN CANADA

0 500
Miles



MAP 18
THE PHYSIOGRAPHIC
REGIONS OF NORTHERN
CANADA
(after Bird 1972)





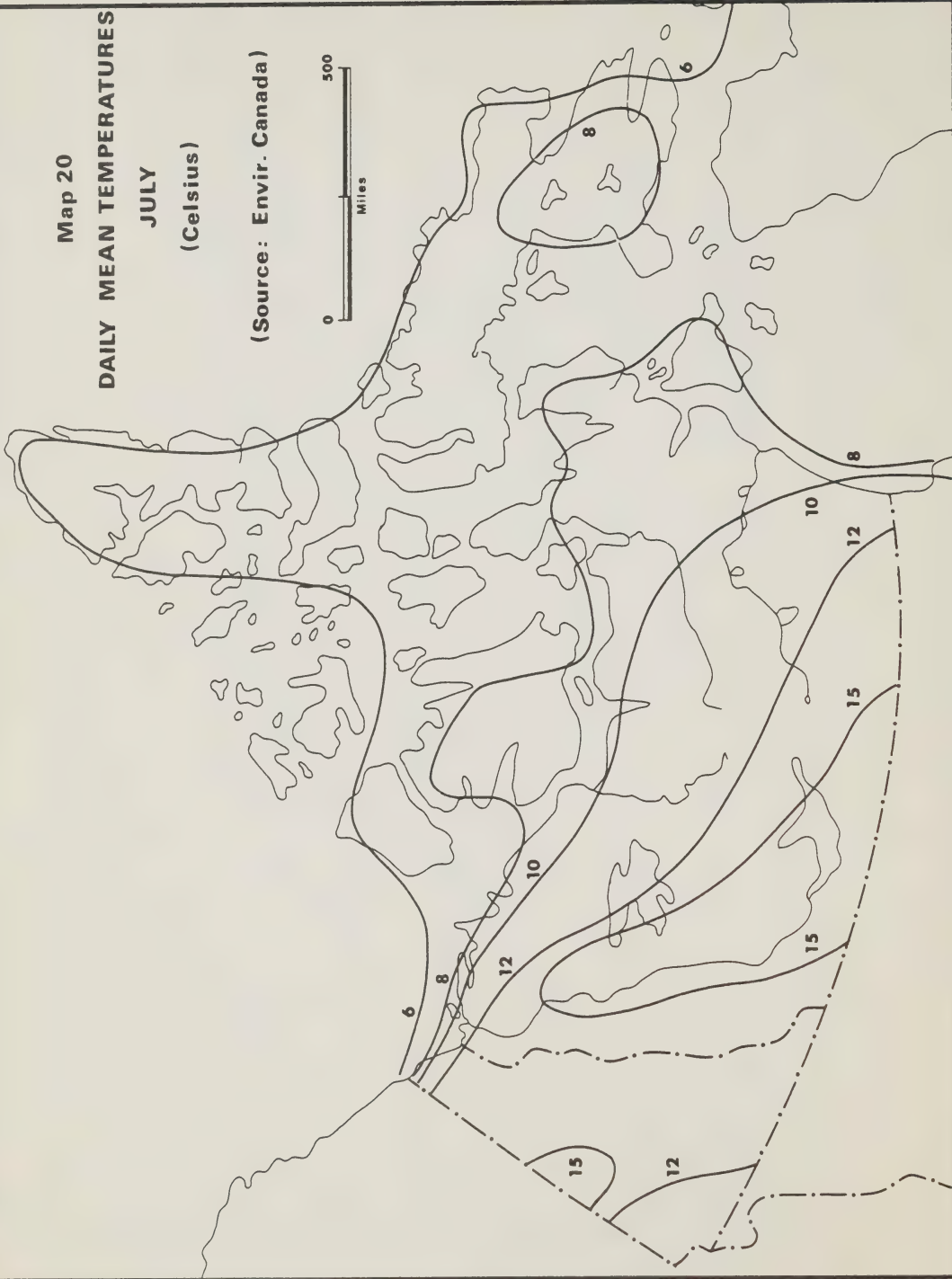
Map 20

DAILY MEAN TEMPERATURES

JULY

(Celsius)

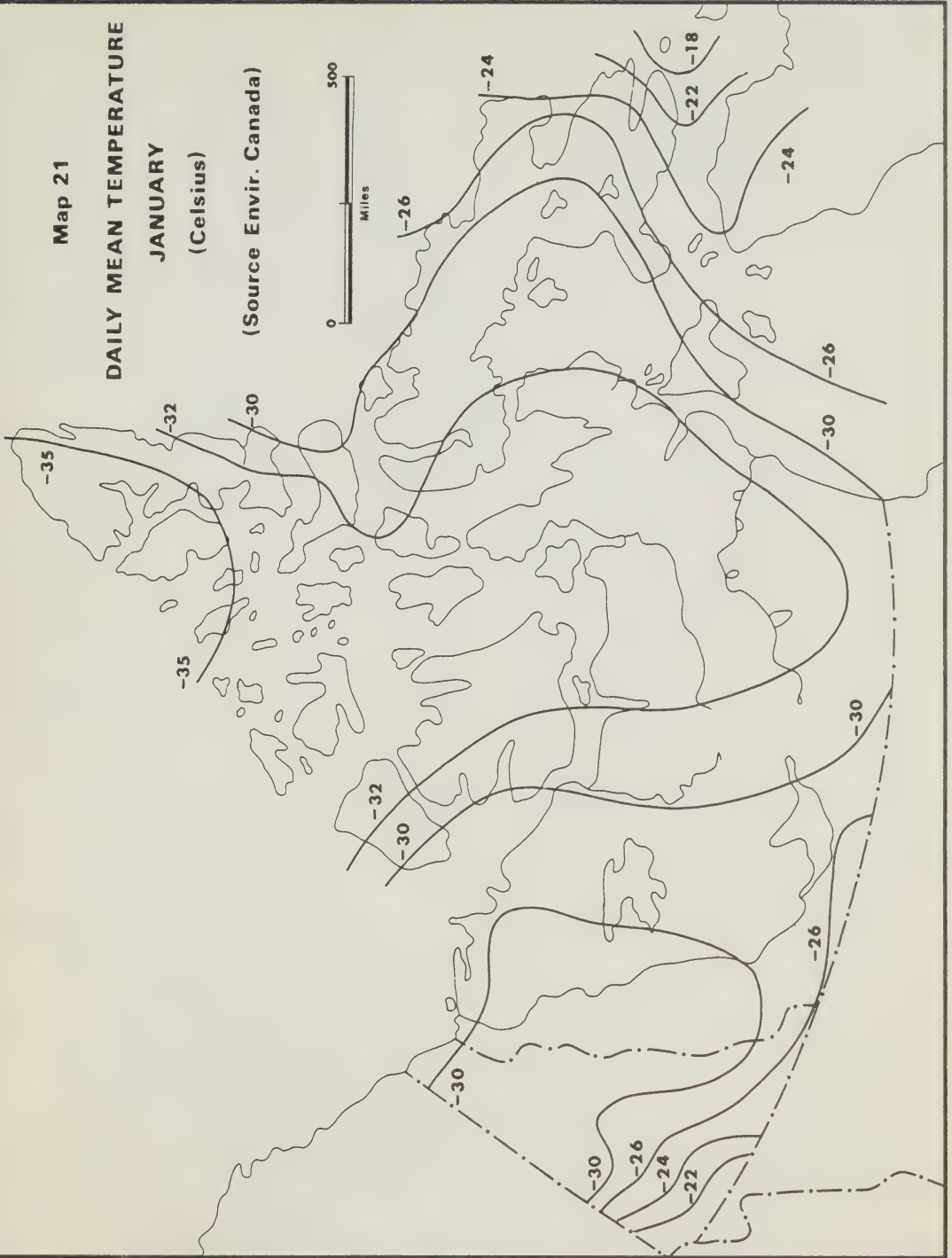
(Source: Envir. Canada)



Map 21

**DAILY MEAN TEMPERATURE
JANUARY
(Celsius)**

(Source Envir. Canada)



Map 22

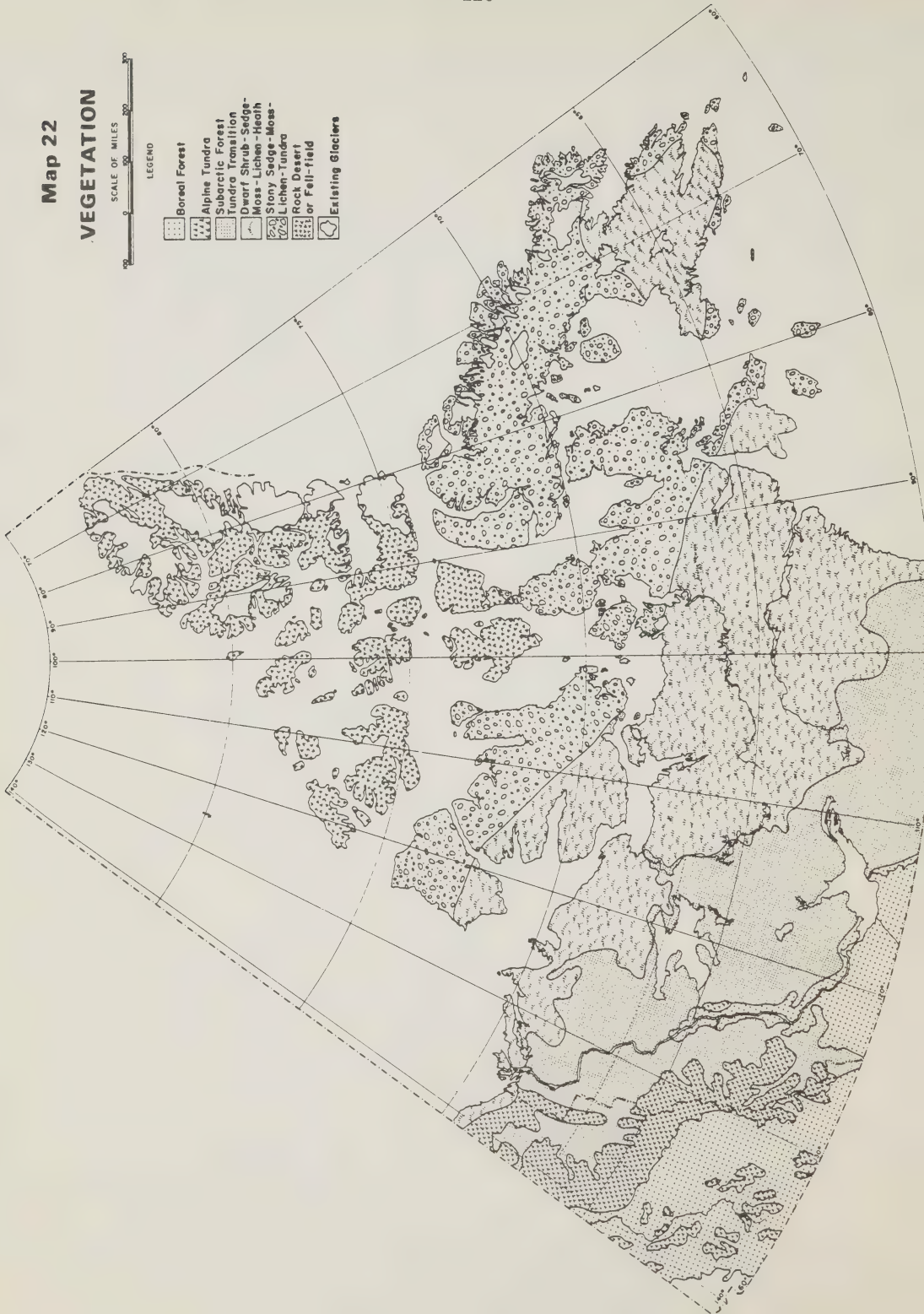
VEGETATION

SCALE OF MILES



LEGEND

- Boreal Forest
- Alpine Tundra
- Subarctic Forest
- Tundra Transition
- Dwarf Shrub-Sedge-Moss-Lichen-Hedh
- Stony Sedge-Moss-Tundra
- Rocky Tundra
- Rock Drift or Fell-field
- Existing Glaciers



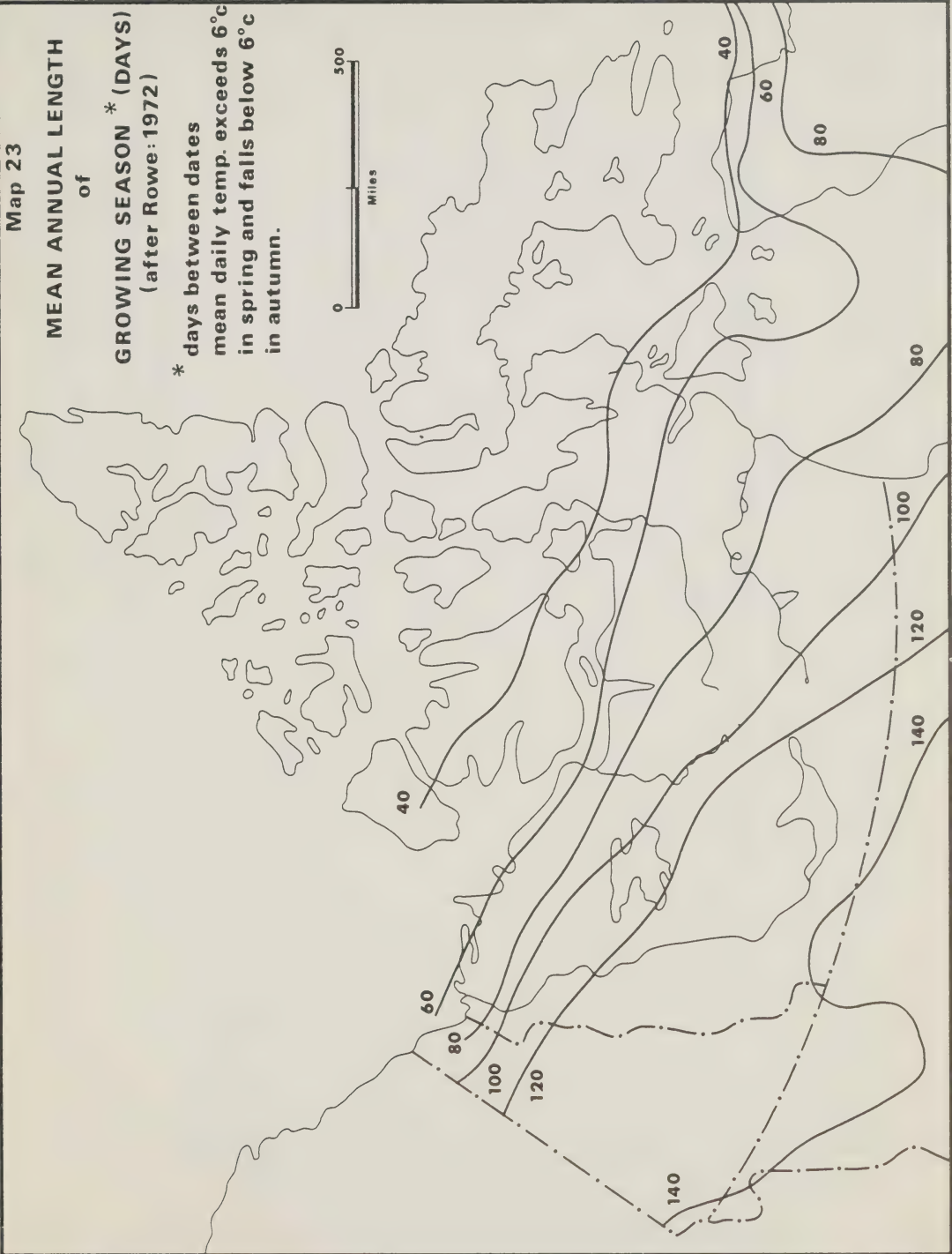


Fig. 1
VALUE OF MINERAL PRODUCTION
YUKON TERRITORY & NORTHWEST TERRITORIES
1964 - 1974

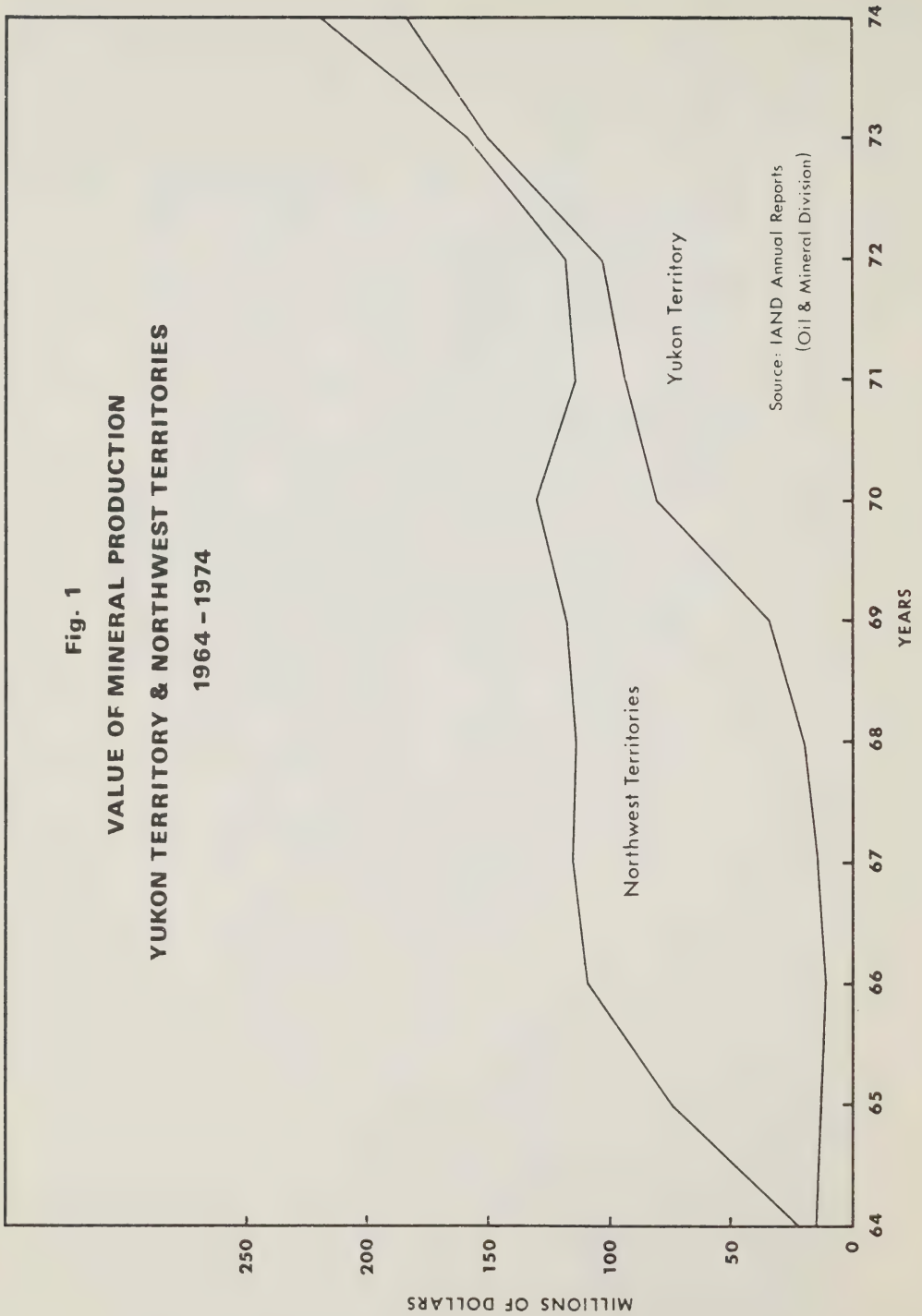


Fig. 2
ACREAGE HELD UNDER OIL & GAS PERMITS
YUKON TERRITORY & NORTHWEST TERRITORIES
1964 - 1974

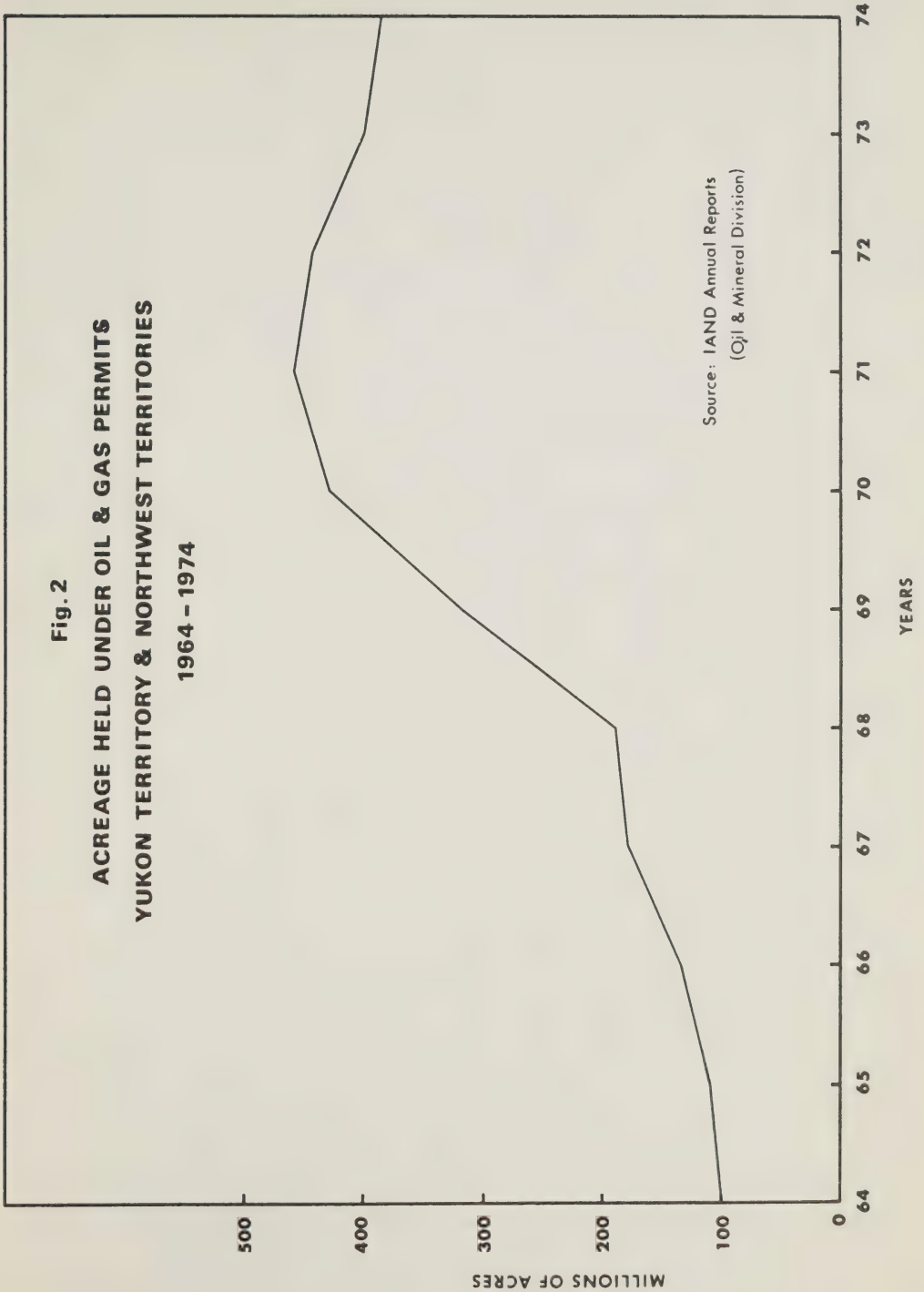


Fig. 3
ACREAGE UNDER OIL & GAS LEASE
YUKON TERRITORY & NORTHWEST TERRITORIES
1965-1974

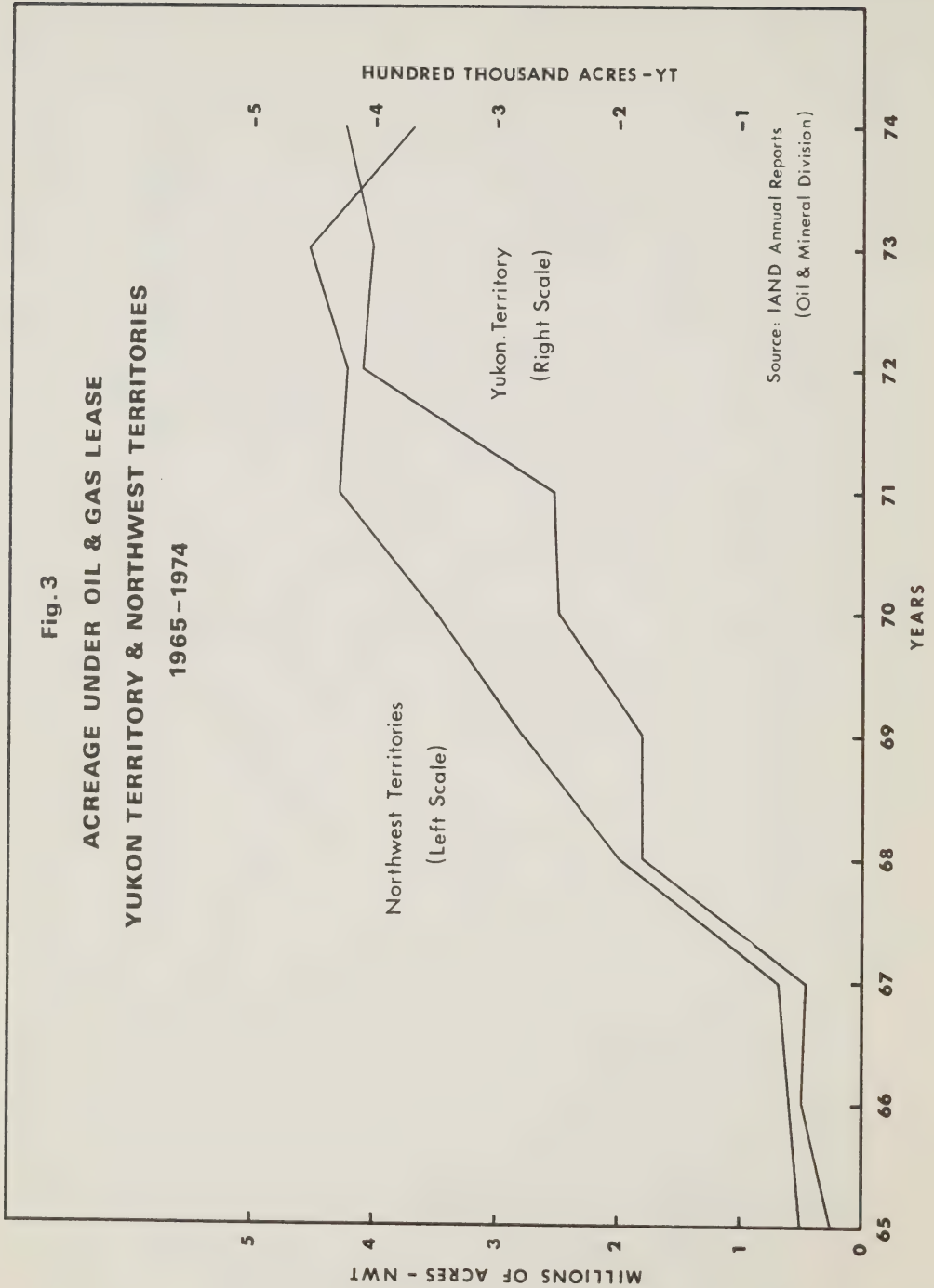
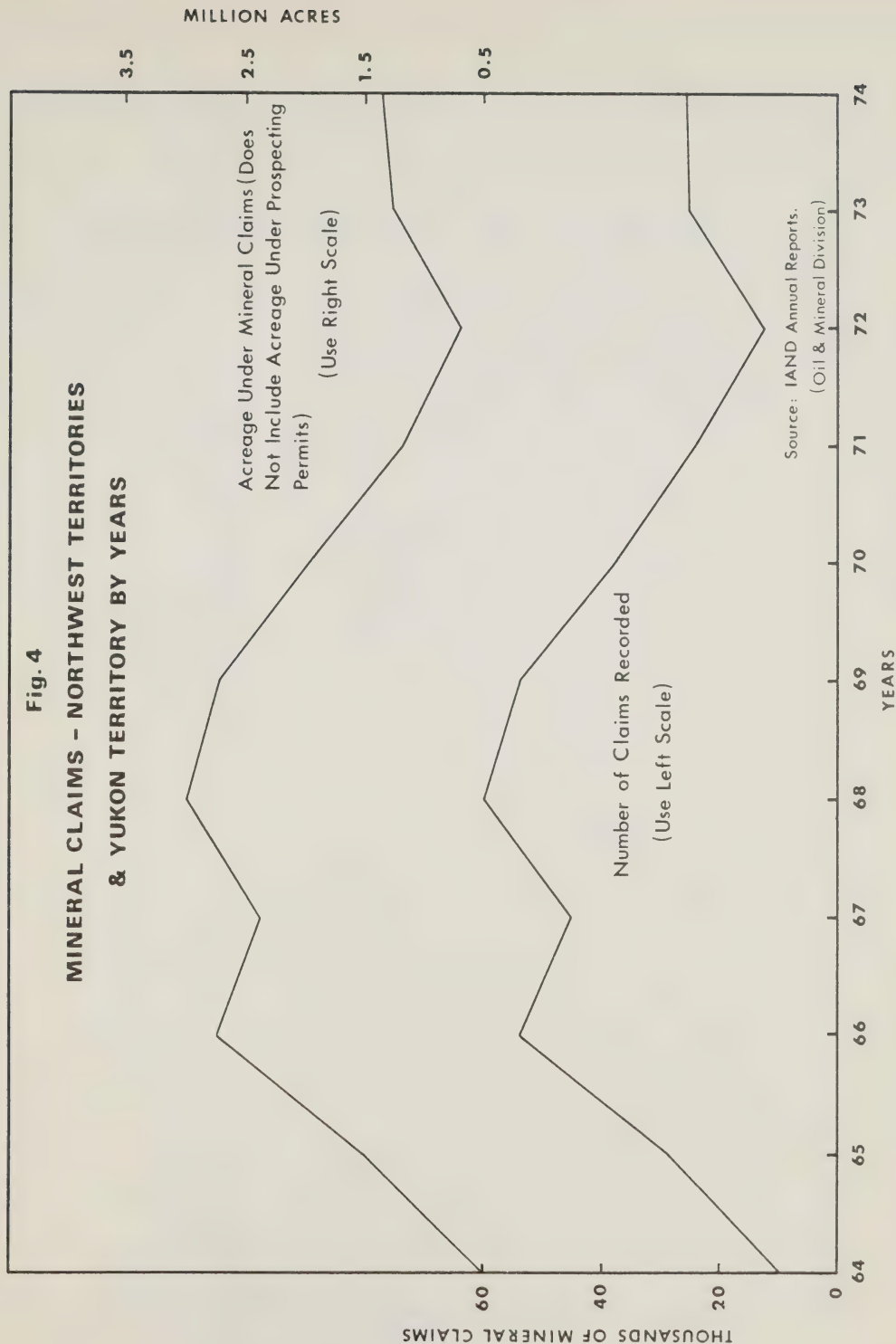


Fig. 4
MINERAL CLAIMS - NORTHWEST TERRITORIES
& YUKON TERRITORY BY YEARS



**MINERAL CLAIMS IN GOOD STANDING
IN THE
YUKON TERRITORY & NORTHWEST TERRITORIES**

Fig. 5

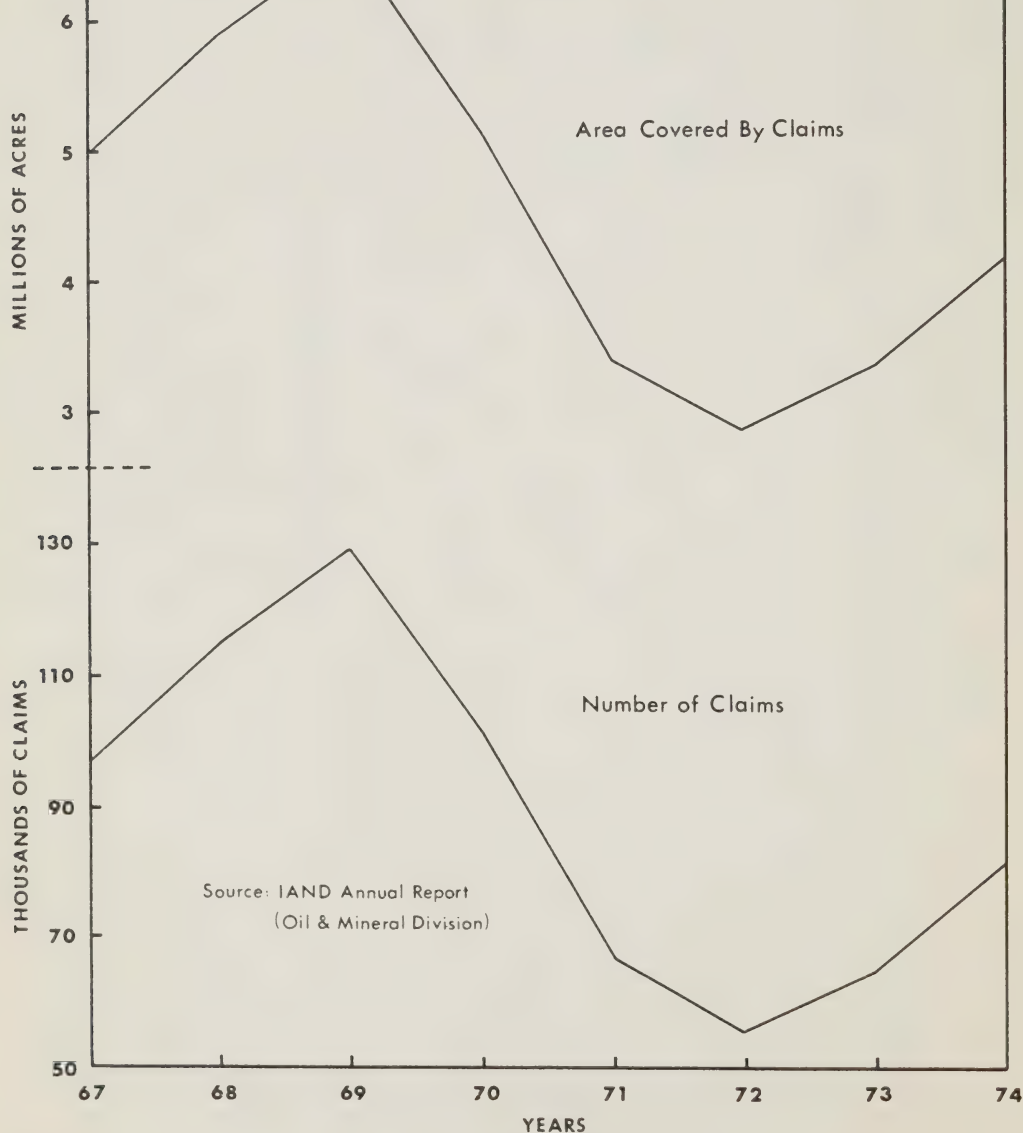


Fig. 6
VOLUME OF TIMBER HARVESTED ANNUALLY
IN THE
YUKON TERRITORY & NORTHWEST TERRITORIES

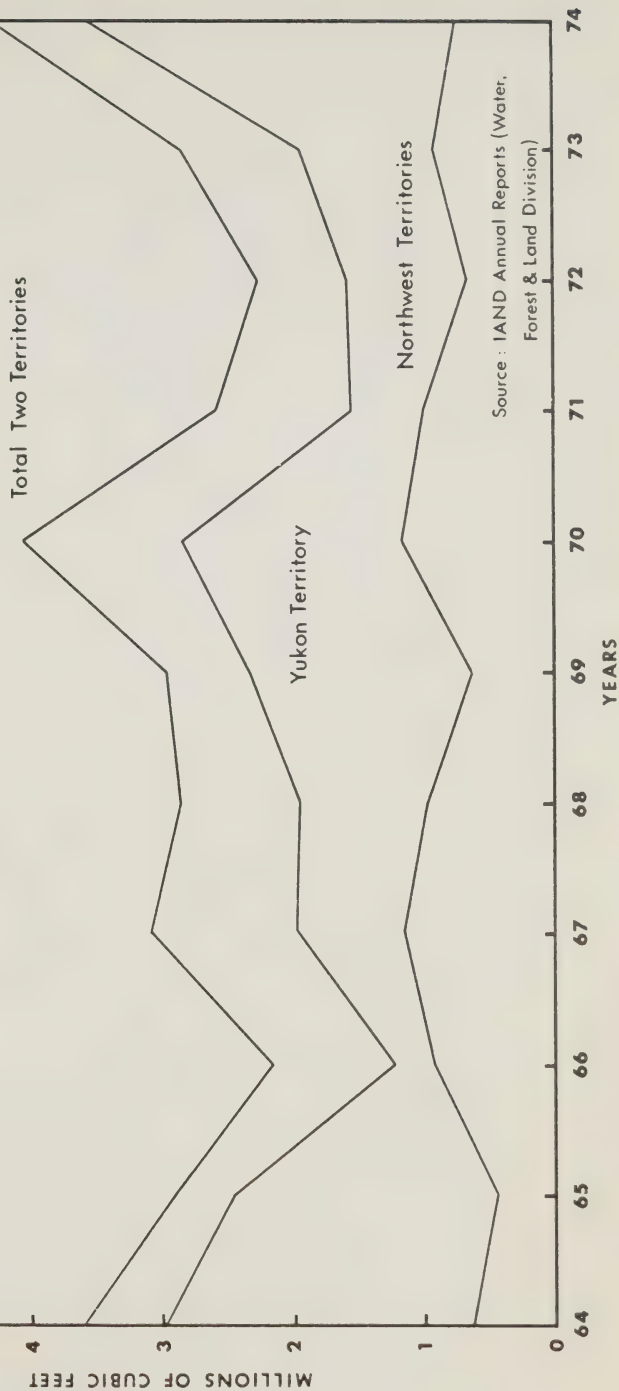


Fig. 7
APPROXIMATE AREA CUT OVER ANNUALLY BY TIMBER OPERATIONS
IN THE
YUKON TERRITORY & NORTHWEST TERRITORIES

